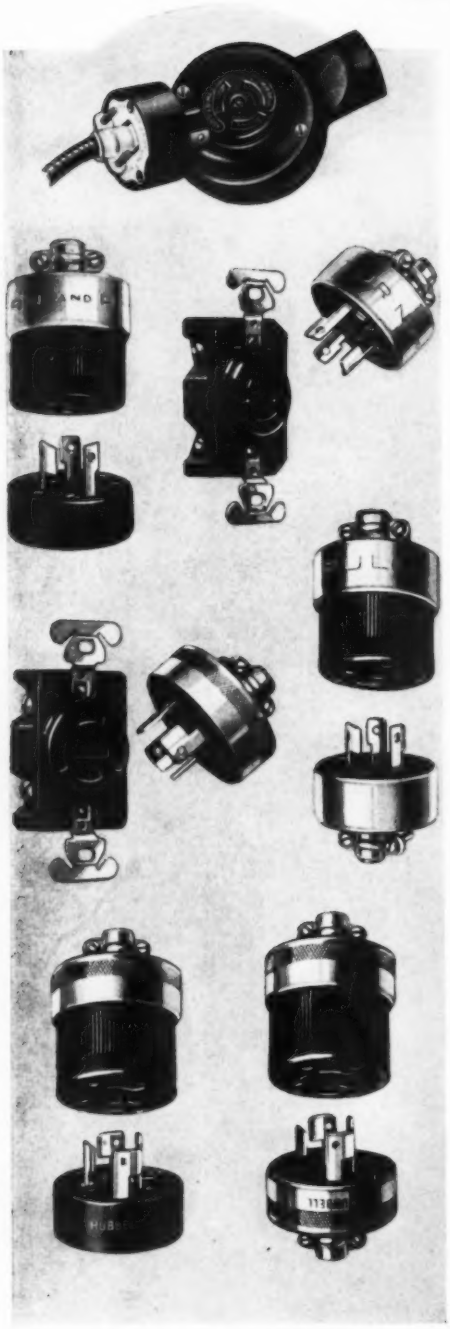
October
1931

Electrical Contracting

With Which Is Incorporated

The Electragist

HUBBELL *Twist-Locks*



1. *Plug in* 2. *Twist* 3. *They're locked*

protect the user against shock and fire hazard!

- Safety demands that the operator of electrical devices be protected against the dangers of shock and fire hazard. Most manufacturers have recently changed their equipment to prevent injury and loss of life.

- The Fire Underwriters recommend this protection. Many States require it by law.

- For years Hubbell Twist Locks...two, three and four wire grounded and polarized devices ...have been accepted as standard equipment on high cycle and portable tools. Recently complete factories have been changed over to Hubbell Twist Locks because of safety.

- Twist Locks not only protect the user against hazards of shock and fire but provide a lock-fast connection that is impervious to kicks, jerks and vibration. The security of a direct electrical connection and the convenience of a separable connection are provided by the twist of the wrist.

- There is a two, three and four wire Twist Lock line to meet every problem. It is your protection against loss of time and loss of life. It is your guarantee of increased production and decreased operating costs.

Send for complete Twist Lock information.

HARVEY HUBBELL, INC.
BRIDGEPORT, CONN.

Hubbell *Twist-Lock* Devices

Electrical Contracting

VOLUME 30 *With which is incorporated* The Electragist NUMBER 12

CONTENTS FOR OCTOBER, 1931

Resale Price News

New list-prices and discounts by manufacturers are reflected in price reductions this month.

Reductions have been made in the following:

Threaded conduit fittings
Threadless fittings
Entrance fittings
Armored cable connectors
Panel boards
Fuse cabinets
Caps and plugs for receptacles
Receptacles
Tumbler and push switches and plates

Listings have been enlarged on Thomas & Betts fittings, covers for round Adapti boxes, General Electric and Tork time switches.

Triplex switches and Mark-Time switches have been added.

Numbers of several switches have been changed on Type C Industrial "Wk-97" Westinghouse switches.

S. B. WILLIAMS
Editor and General Manager

WALTER HOLMES
Eastern Field Editor

CORT A. SMITH
Western Field Editor

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Caledonia 9031-9032

CLEVELAND
Geo. E. Pomeroy, Manager
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Cherry 2440


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WIRING SYSTEMS
and FITTINGS
6
FOR Every
CONCEIVABLE
REQUIREMENT
1 RIGID STEEL CONDUIT
2 FLEXIBLE STEEL CONDUIT
3 STEEL ARMORED CABLE
4 METAL MOLDING
5 NON-METALLIC FLEXIBLE CONDUIT
6 NON-METALLIC SHEATHED CABLE
IRING
IRES
TRADE MA
REG
National Electric
National Metal Moldin
div

New Business Opportunities

EACH year just before the annual Electragist Convention, ELECTRICAL CONTRACTING brings out a special convention issue which is the outstanding issue of the year from the standpoint of text matter.

For the past few years each of these issues has had a basic theme in order to concentrate the thinking of the industry on that one subject. This issue is this year's convention number and the theme is "New Business Opportunities for the Electrical Contractor."

In presenting this issue ELECTRICAL CONTRACTING has two motives. The first is to show electrical contractors some ways in which to turn to get out of the depression. The second is to emphasize the ever growing scope of the electrical contractors' market.

• • •

IT was not so very long ago that the contractor's market was confined to wiring for light and power. That market still provides the greatest outlet or the contractor's energies, but at the same time it provides the greatest competition.

Rapidly electricity is being put to work in new directions and while other outlets have been and are being tried, sooner or later the market goes to the contractor.

The contractor is learning to specialize and with his electrical background he offers manufacturers in specialized lines the most efficient, effective and economical outlet available.

Where the equipment involves a large installation expense the market turns to the contractor as the only one able to finance the work.

In strictly competitive work the reward comes from the ability to manage work and have it go through efficiently. In specialized effort the reward comes from selling.

There is little the contractor can do to increase the volume of wiring in the competitive market. In the specialized market all of his efforts are creating wiring business.

• • •

ELECTRICAL CONTRACTING has been promoting specialization on the part of contractors as the way out of the economic difficulties inherent in a competitive business. These new opportunities make specialization easier.

The manufacturer of wiring supplies can help himself and the contractor by lending his support and encouragement to the movement.

The wholesaler gets the business when the contractor does. If these new business opportunities go to others the wholesaler also loses.

In spite of the rather dismal business situation of the moment ELECTRICAL CONTRACTING knows of no industry with greater prospects for men who have the will to work and use good hard common sense.

THE NEW YORK TIMES, TUESDAY, AUGUST 18, 1931.

Radio City Buys 15,000 Miles of Copper Wire; Early Start Looms in Construction Work

In the erection of the ten buildings for Radio City, in the three blocks bounded by Forty-eighth and Fifty-first Streets, Fifth and Sixth Avenues, 7,800,000 feet of copper wire will be used.

Announcement of the awarding of a contract for the wire, in varied sizes and types, to the Anaconda Wire & Cable Company was made yesterday by the Metropolitan Square Corporation, representing the Rockefeller interests in the development of the broadcasting and amusement centre.

The contract was said to be the largest of its kind ever let for a building operation. Placed end to end the individual strands would cover a distance of 15,000 miles.

The Metropolitan Square Corporation also announced the award of a contract to the American Brass Company of Waterbury, Conn., for most of the brass and copper products, exclusive of the cable and wire, required for Radio City. The award, also referred to as the largest of its kind, included brass pipe, sheet copper and copper in rolls. The pipe, varying in diameter from half an inch to eight inches, would make a tube 200 miles in length.

Many construction records already have been broken in the orders for materials for the d... tracts have been let... tons of steel, to... needed, and for 1,0... of glass.

Some of the mat... needed for a year o... blocks ha... speedily... an early... first bui... ready ha... hattan... prospect... ahe...

What more need we say?

81 The complete line of 81 Anaconda wire and cable products includes these six that you can use every day in your work: Rubber-Covered Wire, ABC Armored Cable, Flexible Steel Conduit, Duraduct Loom, Durax Sheathed Cable, Flexible Cords.

..... "the greatest private development in America" .....

ANACONDA WIRE & CABLE COMPANY

GENERAL OFFICES: 25 BROADWAY, NEW YORK
CHICAGO OFFICE: 20 NORTH WACKER DRIVE
Sales Offices in Principal Cities

VOLUME 30

Electrical Contracting

NUMBER 12

With which is incorporated The Electragist

OCTOBER, 1931

The OPPORTUNIST

By JOHN WISE

I'VE been reading history again and I feel a toast coming on, so let's tip the old steins to Sir Maurice de Bracy, the smartest and most successful "free-lance" that ever swung a battle-axe. Born in King John's time, with a sword on his hip and a love of money in his heart. At twenty-five he headed a band of knights and men-at-arms so tough and clever that all the big shots in Europe were bidding for his services.

Some people think de Bracy was just a mercenary hoodlum because he couldn't see the sense of risking his hide for fun, or for the smiles of some two-timing woman. He fought for money, but just the same he was a square-shooter with his men, and his customers, and he always delivered the goods. On top of this he was a specialist of the first water; he picked the field most suited to his talents, created his own opportunities and charged plenty. He was an opportunist.

So Morday went for a ride and that was that.

For instance, some noble would say: "Listen, Morrie, I don't like the beer they serve at the Raw Dog Tavern. I'll slip you a hundred guineas if you'll go down there and throw the joint up for grabs." "Not me, Bozo!" sneers de Bracy, "Get a few dock-rats for that job, I play the Big Time only."

On the other hand Morrie would hear Count Romanose squawking that the Duke de Kakiac owed him heavy dough and how he would like to knock him off, but his castle was too strong. Then de Bracy would wink and hold up three fingers, which meant three thousand pounds; Romanose would nod his head and soon de Kakiac would be pushing up daisies where his castle used to be.

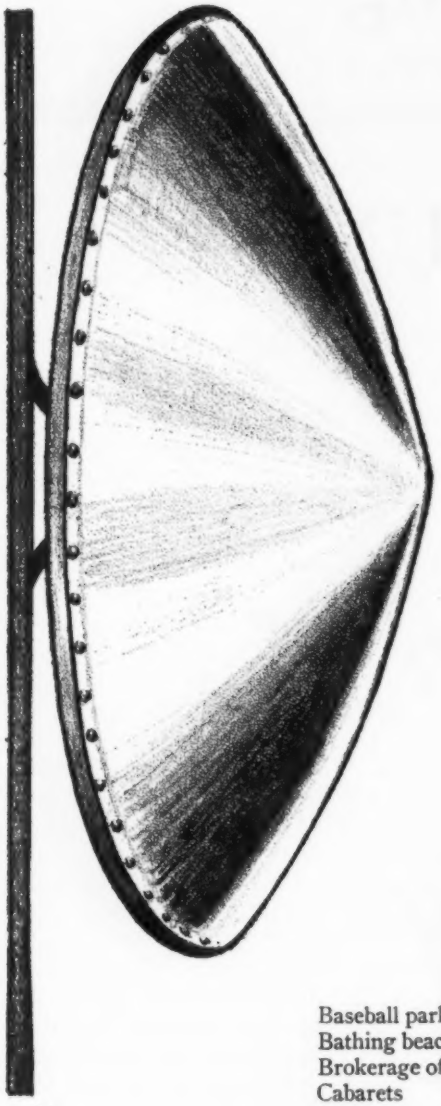
When work was slack de Bracy would pull a fast one. Once he told Baron Morday, a guy he didn't like, that his castle was weak. Of course it wasn't, but the Baron took fright and began to plan more walls. Before he could start work, de Bracy skipped over to the Earl of Escrow and says: "This here Morday person is putting shock absorbers on his shack so he can tackle you safely. For five thousand quid I'll hi-jack his dump and you can use it for a garage."

So Morday went for a ride and that was that.

De Bracy died a millionaire.

Now, mercenary or no mercenary, de Bracy's system is good enough for me. I'm a free-lance, wearing no man's collar and I'll pick the jobs I know I can do better and steer clear of competition. Right before my eyes are a hundred new fields opening up—special lighting, public address, television, the electric eye, and many others. I won't wait for the customers to hunt me up, either, I'll carry the battle to their doors and if I don't make a clean-up it will be because I died last Wednesday.

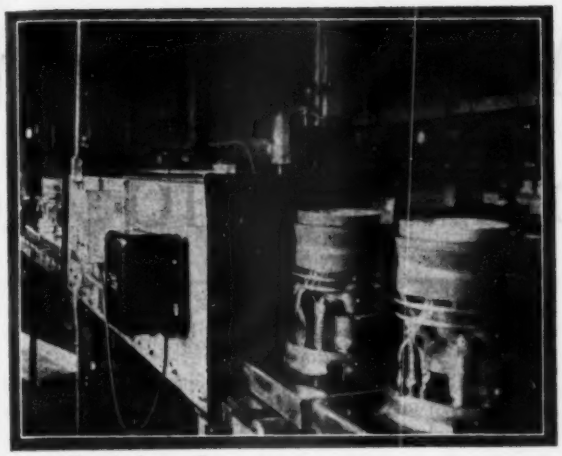
71 *Places* Where Contractors Can Sell Public Address Systems



This is a rich field for capable contractors who are willing to specialize. Although only a few years old, the market has spread very rapidly. As yet, however, the surface has hardly been scratched. Its greatest possibilities seem to lie in its use as a paging system for factories, offices, department stores, hospitals, etc., and for making announcements at outdoor sports.

Academies
Advertising trucks
Airports
Amusement parks
Apartment houses
Athletic fields
Auctions
Auditoriums
Auto camps
Band stands
Banquet halls
Baseball parks
Bathing beaches
Brokerage offices
Cabarets
Carnivals
Cemeteries
Charitable institutions
Churches
Circuses
Civic centers
Clubs
Colleges
Community houses
Construction work on big buildings
Conventions
Dance halls
Dancing schools
Encampments
Factories
Fairs
Filling stations
Flying fields
Football games
Gymnasiums
Home entertainments
Hospitals
Hotels for paging, for banquet halls and meeting places
Laundries
Markets, public
Merry-go-rounds
Midget golf courses
Motor cars (busses)
Open air assemblies
Orphan asylums
Paging systems for offices and factories
Parks
Playgrounds
Political rallies
Polo games
Prisons
Race tracks
Railroad depots
Receptions
Regattas
Restaurants
Riding academies
Roller skating rinks
Sanitariums
Schools
Sporting arenas
Stadiums
State fair grounds
Steamship piers
Stores
Summer resorts
Swimming pools
Theatres
Undertakers' chapels
Vehicular tunnels
Veterans' homes

New Business Opportunities



General Electric photograph

Counting the number of refrigerator units passing the light source.

The sign on this building is controlled by an electric eye.

General Electric photograph

The ELECTRIC Eye

Many people have merely thought of this device as an interesting novelty to do uncanny things. As a matter of fact it is intensely practical and is rapidly being applied to industrial and commercial activities. It opens for the contractor a new field which promises to be large and profitable.

It

¶Turns lighting in schools, factories and offices on with approaching darkness and off when it gets light again.

¶Opens garage doors without having to get out of the car.

¶Counts items in factory production.

¶Counts vehicles passing a certain point in a tunnel or on a bridge.

¶Throws out rejects such as bad beans or improperly labeled packages.

¶Opens doors for waiters in restaurants.

¶Sorts packages according to size and shape.

¶Stops paper machine or press when paper breaks.

¶Deflects packages on conveyors.

¶Protects safes, museums and other places against burglary.

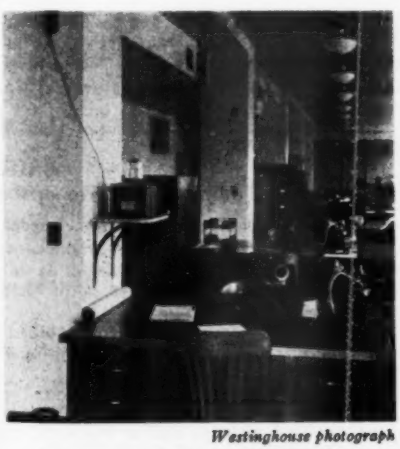
¶Cuts steel bars to proper length.

¶Reverses machinery that must move so far and then return.

¶Controls starting and stopping of machinery where articles are too light or too small to operate mechanical switch.

¶Prevents operation of elevators until passengers are wholly in or out of car.

¶Prevents operation of machinery while operator or his hands are in dangerous location.



Westinghouse photograph

As soon as the light intensity falls below a certain level due to cloudiness or nightfall, the lights automatically go on.

for Electrical Contractors

25 REASONS Why In Contractors Should Repl

IN the mad scramble of competition for larger volume electrical manufacturers and wholesalers have been guilty of persuading industrial plant managers to install their own plant electricians and to buy direct at wholesaler prices, losing sight of the fact that electrical work involves labor as well as materials. Factory managers have been blind to everything, but what appeared to be a handsome saving in cost of electrical materials.

The fact is, however, that except for a very small number of cases where the plant electrician is an exceptional man and he is able to keep busy almost all the time, the industrial electrical contractor can provide a better and more satisfactory job at a greatly

1 The maintenance of one or more plant electricians is a fixed overhead expense which has to be paid regularly without regard to the amount of work. By depending on the electrical contractor the industrial plant customer can take advantage of the diversity of demand between the various customers and can have as many competent electricians as may be needed on call at all times, and with no expense when they are not working.

2 The maintenance of a motor repair and rewinding shop with the tools and equipment and stock of parts and wire involved is an expensive luxury for most plants. The diversity of demand among the different plants favors one central shop, rather than a shop at each plant.

3 Because the contractor's success depends on retaining his customers, year in and year out, he has a strong incentive to give these customers the advice which he thinks will be best for them in the long run and which will be most conducive to the economical conduct of their plants.

4 Contractors are of necessity in closer and more frequent touch with electrical manufacturers, jobbers and inspectors than a plant electrician can be, and consequently have a better opportunity to keep posted on the latest and best materials and methods.

5 The contractor has a crew of specialists to pick from, instead of using the same man on everything in the plant.

6 The contractor's men have, of necessity, more speed and pep than the average maintenance man.

7 The contractor has to push the job to make a showing on his cost estimate, an item not watched so closely on maintenance work.

8 The average plant maintenance man is an older man, too slow for contract work, and often not as competent, or as well versed in the Code.

9 The stock of material for the maintenance man will necessarily accumulate more and more leftovers, specials, and misfits, because he cannot return it to the jobber, dare not admit his mistakes to the boss, and has no place but his own shop to use up these leftovers. The contractor, on the other hand, can and does take back these returns and bills only for goods actually used. The investment in this stock surely must outweigh many of the supposed advantages.

10 If the maintenance man is already tied up on one breakdown or rush job when another occurs, he cannot take care of both. The contractor with his larger crew can give immediate service regardless.

11 Because contractors come in contact with more variety of apparatus to be repaired, they know more about their weak parts than the average plant electrician can ever hope to know.

12 It is the policy of the average plant operator to keep the motor going as long as possible regardless of its efficiency or anything else; therefore, coils in the motor are cut out and bearings shimmied up. This, of course, means more shut-downs than if the motor was taken down and properly repaired, let alone the cost of the shutdown.

13 Rewindings done in the repair shop of the average maintenance department of a plant are just what the maintenance man can get by with. If they operate three months, very good, they'll take it out and do it over again.

BRIEFLY

The points in favor of the ind

(a) Lower cost of work over a period of time, because:
1. Quantity buying of similar articles reduces costs.
2. Only material necessary to do the job is billed t customer. The customer has no stock of "leftovers which may never be used again.
3. Only the labor necessary to do the job is billed to th customer. The plant electrician's time goes on whethe working or not.
4. Tools and equipment do not stand around idle i customer's plant between jobs. This saves storag space and carrying charges and at the same time th contractor's special tools and equipment are availabl in good condition, for any job.

(b) The job will be done better, because:
1. The contractor is familiar with all new developmen

New Business Opportunities

Industrial Electrical
eplace Plant Electricians

reduced cost.

The reasons for this are stated on these pages. They were gathered by ELECTRICAL CONTRACTING from the experience of industrial electrical contractors in virtually every section of the United States.

All of the facts, herein stated, should be susceptible of definite proof by actual cases, but, unfortunately, contractors have not been careful to secure comparative cost data.

These statements backed up by such proof should be very effective in helping industrial contractors to regain much of the work previously lost to plant electricians.

—*EDITOR.*

If the industrial electrical contractor, however, was to rewind a machine and it did not give more than three months' service he would be expected to make it good. The industrial electrical contractor has to do a better job.

14 The service from an industrial electrical contractor is more prompt and effective, than that from a plant's own department because the contractor has more facilities, better men and more material to draw on.

15 Maintenance men are usually hired by people that know little or nothing about electric work. Therefore, they really have no one to oversee them. As a rule they get careless and lazy, because they know that no one is watching them.

16 The industrial electrical contractor can serve better because of the various classes of help he has at his command, namely, installation men, armature winders, etc. This makes for economy and quality workmanship.

17 Having no training in the electrical industry, plant managers are unable to decide whether their layout is proper for their needs; whether their men are using the proper and the most economical materials to attain the results desired, and whether these men are doing an honest day's work.

UMMARIZING
rial electrical contractor are:

in materials and methods.

2. Only the proper type of material is used on the job. The contractor has no stock of obsolete material to attempt to work in.
3. Experience in other plants gives the contractor a broader knowledge from which to devise the best solution. He is not in a rut, blinded by "past practice."
4. The contractor has an engineering organization capable of drawing, designing and recording any changes in the plant wiring.
5. The contractor is able to supply men who have specialized in various branches of the work, such as cable splicers, telephone men, meter and switchboard experts, etc. These specialists are not available to the "plant electrician" method of operation.

18 When the contractor's men are through with the job, their labor expense ceases, whereas the plant electrician is rarely any good for other work around the plant.

19 The plant doing its own work gets no comparative cost estimates, and so is rarely able to know whether its work is being done for a proper price or not.

20 A general inspection of industrial plants recently made in one city by the inspection department showed that in all places where industrial plants have ceased having the work done by a contractor, it required spending twice as much money to bring the electrical installation up to where it was before the plant electrician was employed. Electrical connections were not soldered and in many instances only friction tape was used. Unbalanced conditions to such an extent that portions of the plant are at the proper voltage and other parts do not have sufficient voltage were found.

21 Plant electricians generally know little, or nothing, about advising the plant manager as to how to take advantage of the prevailing wholesale rates, nor does he know how to check up the kilowatt or demand meter to determine whether the bills are correct.

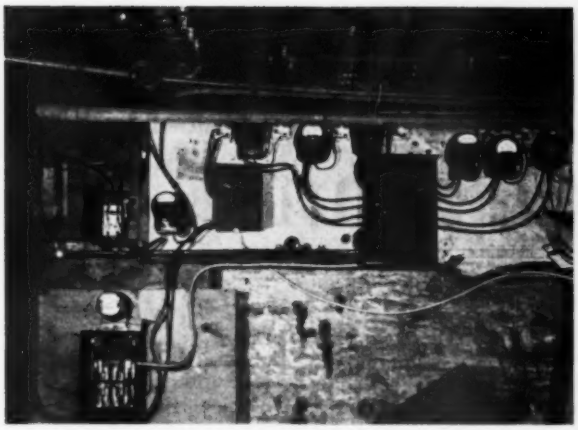
22 Lack of supervision results in poor work, no responsibility and labor costs greatly in excess of the contractor's.

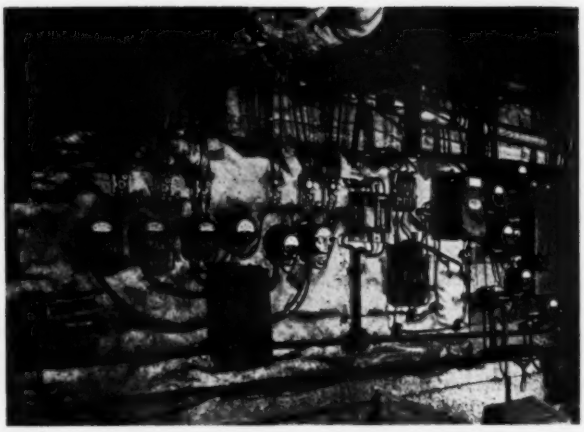
23 A great deal of the work has been done temporarily. Of course, the plant electrician expects to do it permanently, when he gets the time which never comes.

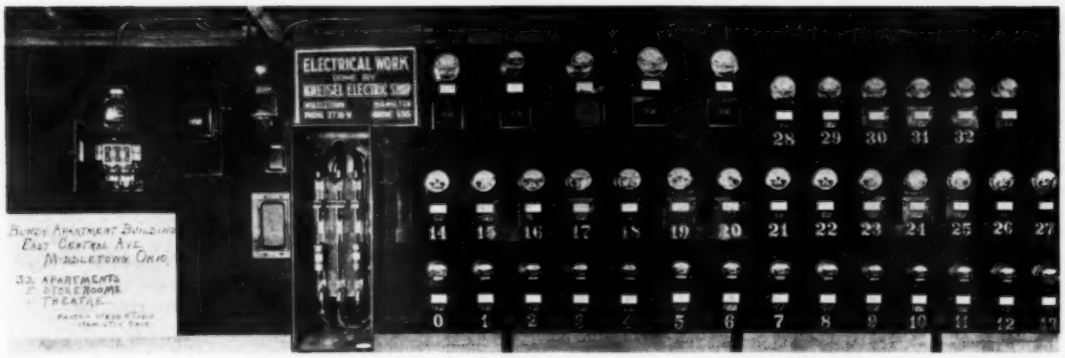
24 Present day equipment, if properly installed, does not need a man waiting around. An electrical contractor can make periodical inspections of the plant, and save considerable time and money.

25 It happens so often that such positions are filled by men who call themselves electricians and do not have the experience necessary to render the service required, many of them being the product of a few weeks' course in some trade school.

for Electrical Contractors







The photographs are reproduced through the courtesy of the Wadsworth Electric Manufacturing Company.

Exact conditions found in the basement of an apartment home and theatre in Middleton, Ohio. Below is shown the result of reinspection. Work done by Kneisel Electric Shop of Middleton.

Millions

for the Contractor in

Reinspection

CONDITIONS such as pictured on this page are not rare. They are to be found in every city, not only in apartment buildings but stores, homes, factories, public buildings, etc. They are the result largely of additions to the original wiring by janitors, handy-men and others not competent to make wiring installations.

Reinspection will ferret out these conditions and provide work for electrical contractors.

There should be a mutuality of interest between the contractor and the inspection department over reinspection at this time. When the contractor is not busy with new work the inspector is idle. Reinspection, therefore, not only provides wiring work but inspection work.

It has been variously estimated by well-known chief inspectors with experience in reinspection that between 50 percent and 85 percent of premises wired over five years had electrical defects serious enough to demand their correction. A survey last year by ELECTRICAL CONTRACTING showed that in six out of every ten premises reinspected there was a $59.00 wiring job.

It does not take much imagination to see that there are millions of dollars' worth of electrical work waiting to be done when, as and if there is reinspection.

New Business Opportunities

There is MONEY *to be Made in* SIGNS *if Done Right*

By W. F. KOHN
Eugene I. Rosenfeld & Co.
Baltimore, Md.

W. F. Kohn demonstrating two portable signs that are enclosed in cases and may be carried out for demonstrating purposes.

FOR twenty-five years we have been in the electrical contracting and sign business. Even before neon was heard of we had worked up an excellent business in signs. With the coming of this type of sign the business has enjoyed a remarkable growth.

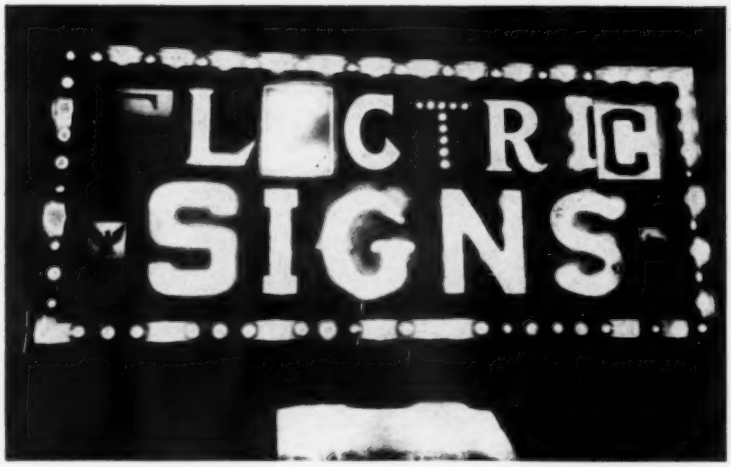
There is no particular reason for selecting the sign business as one in which to specialize. There are several lines which we might have chosen. However, there was a very definite reason for specializing. If we are to get our share of business in the territory we must be able to offer the public expert workmanship backed with first class equipment. It is our protection against the unfair competition of contractors who enter business without knowledge or capital and try to make up for this deficiency by cutting prices to a profitless basis.

Business is increased because there is a limited number of concerns equipped to serve the public in a specialized line. Profits are increased for the same reason, because a portion of our business is non-competitive.

The salesman often sees a place of business that appears to need a sign. He stops in, makes inquiries and a lead is developed. After telling the prospect why he needs a sign, and how it will benefit him he sells our firm. The next step is to persuade the prospect to visit our store and plant where neon signs are made. There he sees examples of completed signs, and photographs of installations we have made. These are kept in racks that fold out of the way when not in use. We also have a flasher and board that shows a large variety of lettering.

The prospect is then taken upstairs where he sees our neon plant in operation. Not only does he see our workmanship and equipment but we try to impress upon him the fact that in case of emergency he can have replacements made imediately without the necessity of sending out of the city.

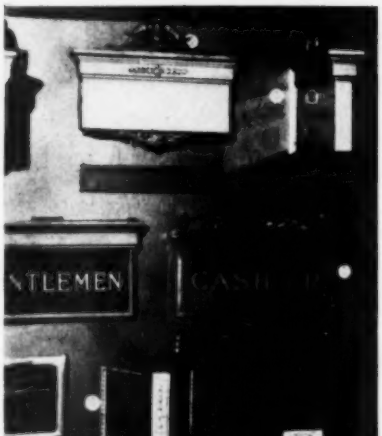
FRANKLY, we can do a better job because we specialize, and because we can do a better job there is less competitive bidding. A man who has been shown his need for a sign and shown why we are able to give him a better sign and offer better service is not apt to be swayed by the offer of a competitor to do the job for



This flasher in the store shows many different styles of lettering.

Many jobs are also obtained from customers for whom we do contracting work. If, for example, we are wiring a store or public place of any kind, there is an opportunity to sell signs. In theatres small signs are needed to indicate wash rooms, exits, directions, etc., and special jobs such as colored glass fountains are sometimes sold.

Signs have been sold on time payments almost from the first and the prospect expects it. As all signs are custom-made, it is necessary to be sure of a man's credit rating before signing a contract.



Small signs make a profitable source of additional revenue.

less. In many cases the prospect does not even trouble to see other sign people.

Prospects are obtained through newspaper, telephone book, and direct mail advertising. As a whole we are inclined to favor the latter two mediums as they reach a higher proportion of potential customers. The local gas and electric company also runs campaigns. Then too, their men are continually looking for larger current load and when they see a prospect they talk signs to him. We get our share of these leads.

PAST jobs are another means of securing new business. When a sign is erected the customer has his friends who notice it and are interested. People in the neighborhood where a new sign is erected also become sign minded. This applies especially to competitors of the man who has had the sign erected.

Installation photos are pinned to both sides of this display rack which folds out of the way when not in use.

WITH each sign we give one year's free service. This includes a regular monthly inspection and answering calls in case repairs are needed. As a rule, however, there is very little service work to be done during the first year, outside of cleaning. Night service is not necessary as the regular inspections ordinarily prevent unexpected breakdowns.

After the first year of free service many of the customers sign for the regular inspection service on a flat yearly rate which includes painting. We are anxious to have them do this as it not only gives us a dependable revenue but has another distinct advantage. If service is left to the owner he usually neglects to clean and inspect the sign as often as he should. The result is that it becomes shabby looking, needs paint and soon loses its drawing power.

We never lose interest in signs we have installed, because we regard every one of them as an advertisement for us.

We like to point out a sign that has been up for a number of years and which has been well taken care of and use it as an example of our work, because it is on the character of the jobs that have been well done that the contractor gains a reputation.

New Business Opportunities

How the Contractor Can

SELL Short Center Drive

By K. M. SMITH
S. Edward Eaton Company, New York City.

By the installation of individual chain drives in this battery of dye vats, 30 sq. ft. of floor space was saved on each vat, and two additional vats were installed in the same area. Spoilage of goods was greatly reduced because with overhead shafting oil was apt to drop into the vats.

DUE to his close contact with industrial users the contractor has an unusual opportunity to profit through the sale of short center drive, be it belting, chain, rubber or composition drives. Especially is this true where individual motors may be used to advantage in replacing line shafts.

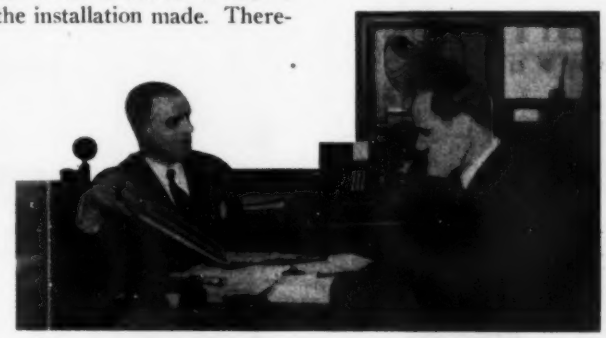
As one good job recommends another it is well for the contractor to have a binder of photos showing previous installations of this kind. Where changes have been drastic there should be photos included that show the plant both before and after the changeover took place.

In the same binder the contractor should carry letters from customers who are pleased with the work done and the results obtained. These help greatly in winning the confidence of the prospect.

Obviously there is little hope of selling drives in old established plants unless the owner is shown where he can save money by having the installation made. Therefore the contractor doing this kind of work should keep in close touch with customers after the job is finished. Figures will then be obtained to show the saving effected through the changeover, both in time and money.

Opportunities are often found where long center flat belt drives are not as efficient as chain, or V belt and a substitution is advisable. The selling points on these are mainly space saved, prevention of slippage, added safety of the workers or the elimination of costly belt guards needed in vertical drives. Moreover, the elimination of a forest of belting gives added light to the plant.

Prospects are found mainly through studying the needs of the contractor's regular customers and showing them how they may benefit through the use of better drive arrangement. Friendly and satisfied plant owners and superintendents usually have a circle of friends in similar plants and are therefore able to suggest new names for the prospect list.



The contractor cannot afford to wait for plant owners to inquire about drives. He should call on prospects with a book showing installation photos and letters from satisfied customers.

When selling new motors the contractor should point out the advantage of allowing him to handle the belting as well. Usually he is able to look over the job and point out some saving that may be made through a particular application he advises. When this is done the contractor has a better chance to get business for the reason that his solicitation is made on the basis of real service.

REMODELLING

I—Concealed

While Ovalduct has been in use for many years, its major function has been to provide a medium for branch circuits and extensions. That it is entirely practical to use it throughout a large remodelling job is proven by the installation made by the Casey Electric Service Co., Chicago, on the Lewis Memorial Hospital in that city. This 11-story and basement structure was converted from a hotel to a maternity hospital and is said to be the largest all-Ovalduct remodelling installation made so far. The necessity for supplying a strictly modern system of light, power and signals demanded a complicated piece of work, with economy and flexibility as the main considerations.

Preliminary laying-out. Checking the plans to determine the direction and size of channels.

This part of the work called for chopping holes for boxes to house switches, outlets, brackets and signals.

The mechanic is using an electric saw to cut the channels in which the Ovalduct is laid.

The actual laying-out consists of marking the walls and ceilings for cutting and channeling.

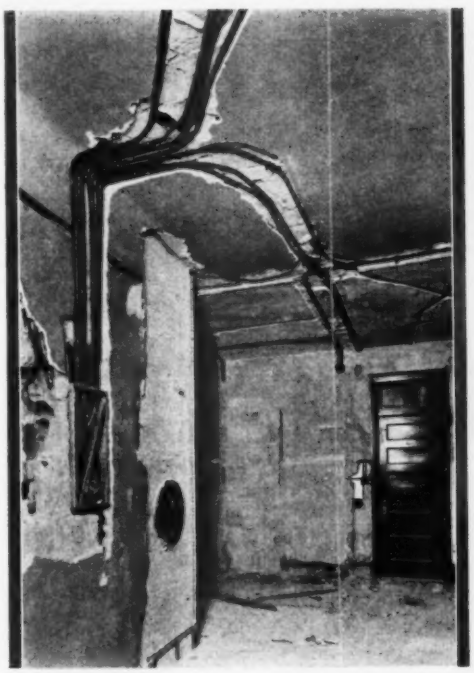
New Business Opportunities

LABOR DATA

Based on 1 man per eight hour day

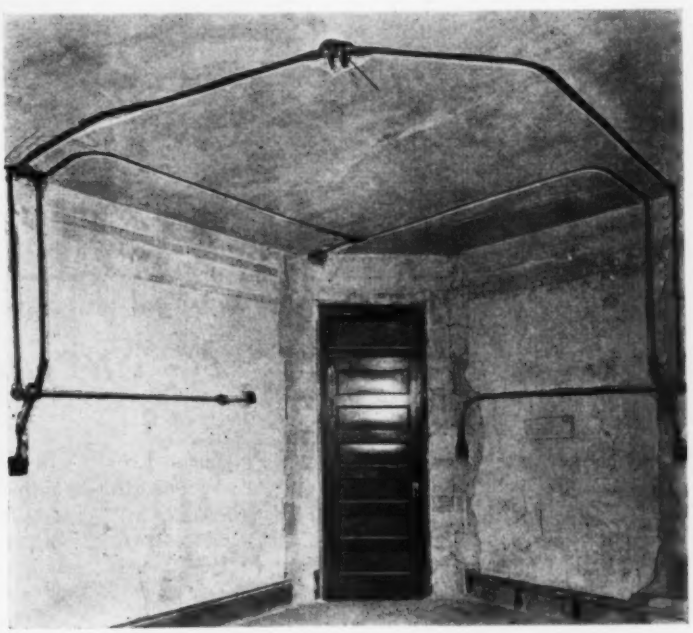
1. Laying out and marking plaster for saws..... 4 rooms per day, each consisting of
   - 1 Ceiling Outlet
   - 2 Switch Outlet
   - 1 Night Light Outlet
   - 4 Bracket Outlets
   - 2 Nurses Call Station Outlets
2. Channeling plaster in corridors..... 275 ft. per day
3. Channeling plaster in rooms..... 200 ft. per day
4. Cutting in and hanging boxes and ceiling plates ..... 50 ft. per day
5. Hanging Ovalduct in corridors, including bends, offsets and saddles..... 200 ft. per day
6. Hanging Ovalduct in rooms, including bends, offsets and saddles..... 150 ft. per day
7. Pulling wires, including polling up.....1100 ft. per day (Part of this was four No. 14's in the Nurses' Call System.)

The roughing in a corridor, not completed to cabinet, showing crossings and saddles.

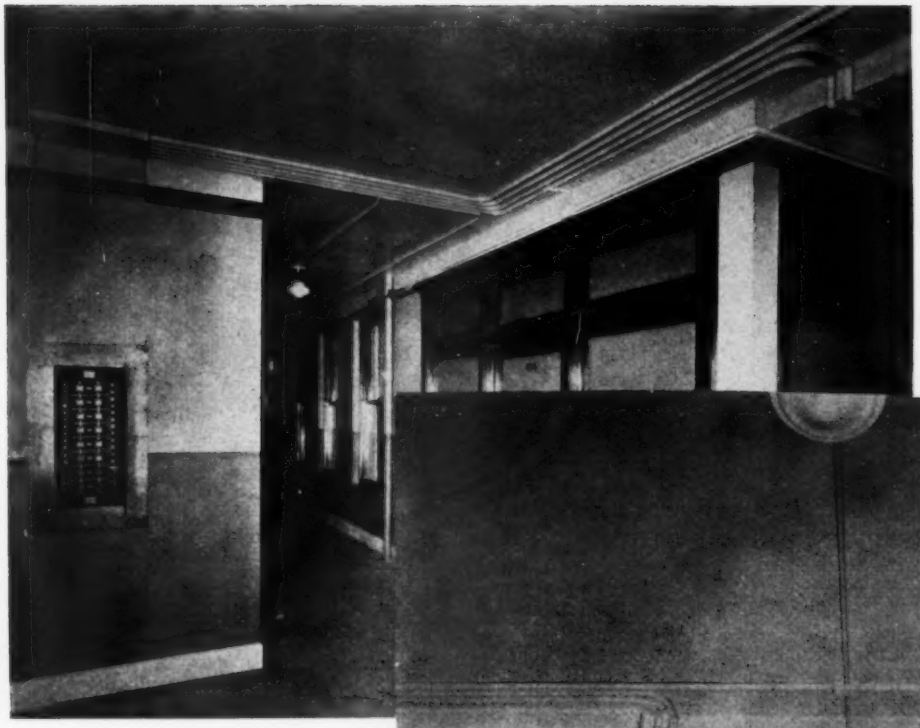


A corridor view, showing the roughing completed to the cut-out cabinet.

A typical room layout, showing channeling, saddling and offsets for ceiling, brackets, switches and nurses' calling station.



for Electrical Contractors



Below is shown large size Wiremold with multiple circuits running down each side of the hall and from them are taken through a utility-box to the branch circuits, as shown, for individual offices.

A typical floor in the Woolworth Building. Circuits are concealed from panel to ceiling junction box from which sub-feeders and multiple circuits are run.

REMODELLING

2 - Surface

THE modernization of the former Pittsburgh Life Building recently purchased by F. W. Woolworth Co. as its Pittsburgh headquarters is an excellent example of the opportunity open to contractors to secure the rewiring of large buildings where surface wiring will be acceptable.

Surface metal raceway was used in this installation in order to give the minimum disturbance to tenants and to have the least amount of patching and building alterations.

In general No. 1000 Wiremold was used to carry multiple circuits supplying a number of rooms as load condition warranted, dropping off at each room through a utility box and using No. 700 Wiremold. Where special load conditions were met the larger size was used for sub-feeder circuits (3-wire) from main distribution cabinet to a smaller sub-panel in tenant's room and from there branch circuits as required.

The installation was made under the direct supervision of J. R. Walter of the Fort Pitt Electric Company.

A. E. I.
CHAPTER DIRECTORY

LOCATION	CHAPTER NAME	PRESIDENT	SECRETARY
ALABAMA			
Birmingham	Jefferson County	R. C. Wiggins, 2023 4th Ave. N.	D. B. Clayton, 844 Mattin Bldg.
CALIFORNIA			
Los Angeles	Cal. Electragists, So.	G. E. Arbogast, 726 S. Olive St.	F. J. Connolly, Exec. Sec'y, 609 Cotton Exchange Bldg.
San Francisco	Cal. Electragists, No.	Edward Martin, 465 Natoma St.	W. A. Cyr, 522 Call Bldg.
COLORADO			
Denver	Denver	J. R. Collier, 1898 S. Broadway	E. E. Stettler, 229 Coronado Bldg.
CONNECTICUT			
Greenwich	Greenwich	J. G. Fox, Greenwich Ave.	Chas. Durkin, 36 Prospect St.
New London	New London	B. F. Bruce, 120 Bank St.	H. A. Newbury, 19 Union St.
Stamford	Stamford	H. H. Meisel, 44 Canal St.	C. D. Greene, Darien.
FLORIDA			
Fort Pierce	St. Lucie	Thurman Wilson, 125 N. 14th St.	
Jacksonville	Jacksonville	S. C. Reddick, 1432 Ionia St.	W. H. Secrest, 716 Newnan St.
Miami	Greater Miami	L. Brown, Jr., 730 Collins Ave.	H. W. Ferguson, 302 N. W. 59th Terrace
Orlando	Central Florida	J. J. Newell, 23 S. Main St.	T. J. Craven, 13 S. Court St.
Tampa	Tampa District	J. B. Wilson, 913 Florida Ave.	Harry Goss, 1205 Franklin St.
W. Palm Beach	Palm Beach County	A M. Terry, P. O. Box 1182	W. E. Tunnicliff, P. O. Box A-41.
GEORGIA			
Atlanta	Atlanta	T. H. Fulton, 135 Peachtree Arcade	R. C. Phillips, 151 Nassau St. N. W.
ILLINOIS			
Belleville	Southern Illinois	J. R. Kelahan, 1920 A. State St. Granite City	Miss I. C. Jung, Main & Charles Sts., Belleville.
Champaign	Champaign-Urbana	John Hughes, 11 E. University Av.	C. C. Craw, 403 W. Springfield Ave.
Chicago	Chicago & Cook Cty.	Wm. McGuineas, 20 N. Wacker Dr.	J. W. Collins, 228 N LaSalle St.
Chicago	Chicago Motor Spec.	S. A. Hohman, 1420 Garfield Ave.	Arthur Wagner, 701 Washington Blvd.
Jacksonville	Morgan County	Paul Trabue, 621 Hardin St.	B. R. Hiernonymus, 221 S. Sandy St.
Peoria	Peoria	Jos. R. Downs, 217 Commercial Bank Bldg.	L. B. Van Nuys, 238 S. Jefferson
Springfield	Springfield	Frank Bishop, 311 E. Monroe St.	W. R. Schnirring, 418 E. Adams St.
INDIANA			
Hammond	Lake Porter	L. J. Granger, 140 Plummer Ave.	
IOWA			
Burlington	Burlington	M. J. Frazier, 1117 South St.	L. A. Pohren, 1506 Grove St.
Cedar Rapids	Cedar Rapids	W. L. Fowler, 218 S. 3rd St.	C. R. Butterfield, 90 First Ave.
Davenport	Quad-Cities	L. W. Zeug, 1816 3rd Ave., Rock Island, Ill.	John Corry, 510 Brady St., Davenport, Ia.
Des Moines	Des Moines	Robt. Honegger, 516 Third St.	Joe Furlong, 308 N. 9th St.
Dubuque	Dubuque	C. H. Keller, 1135 Main St.	C. M. Smith, 414 Main St.
Mason City	Mason City	C. J. Smith, 319 N. Federal Ave.	R. B. Determan, 1711 S. Federal St.

LOCATION	CHAPTER NAME	PRESIDENT	SECRETARY
Ottumwa	Ottumwa	M. W. Poling, 218 E. Main St.	C. F. Alline, 228 E. 2nd St.
Sioux City	Sioux City	E. A. Croll, 423 Pearl St.	H. J. Ryan, 405 Douglas St.
Waterloo	Waterloo	H. R. Plowman, 623 Lafayette St.	C. F. Nagle, 207 W. Park Ave.
KANSAS			
Chanute	Se-Kan.	G. O. Phillips, 215 N. Highland Ave.	C. A. Dowling, 201 N. Steuben St.
Wichita	Wichita	R. G. Shelley, 123 S. Main St.	Chas. Dalyrymple, 1857 N. Lawrence Ave.
KENTUCKY			
Louisville	Louisville	J. Jansen, 613 W. Main St.	M. J. Bowling, 28th & Broadway.
LOUISIANA			
New Orleans	New Orleans	M. E. Hart, 826 Baronne St.	I. G. Marks, 323 Chartres St.
MICHIGAN			
Detroit	Detroit	E D. Brown, 2470 Grand River Ave.	C. C. Cadwallader, 2111 Woodward Ave.
Flint	Flint	P. F. Schagane, 412 Dryden Bldg.	E. E. Allen, 127 E. 1st St.
MINNESOTA			
Duluth	Duluth & N. E. Minn.	Dorus Ehlert, 310 W. 1st St.	Ralph Granquist, 503 Lonsdale Bldg.
Minneapolis	Minneapolis	G. P. Svendsen, 16 E. Hennepin Ave.	G. R. Jones, 510 3rd Ave. S.
St. Paul	St. Paul	J. O. Nelson, 474 Rosabel St.	W. F. Lindberg, 404 N. Y. Bldg.
MISSOURI			
Kansas City	Greater Kansas City	H. C. Evans, 1626 Walnut St.	Guy Burkholder, 6201 Oak St.
St. Louis	St. Louis	W. C. Burton, 904 Pine St.	C. H. Christine, 1504 Ambassador Bldg.
NEBRASKA			
Omaha	Omaha	E. J. Grafentin, 2429 Farnam St.	E. H. Brown, 736 Electric Bldg.
NEW YORK			
Buffalo	Buffalo	Karr Parker, 75 W. Mohawk St.	D. L. Volker, 891 Washington St.
Liberty	Sullivan County	Alpheus Townsend, c-o Electric Shop, Jeffersonville, N. Y.	Kenneth H. Davis, P. O. Box 1021, Liberty, N. Y.
New York	New York (No. 1)	J. W. Hooley, 420 Lexington Ave.	Walter Knapp, 207 East 43rd St.
New York	N. Y. Motor Spec.	W. J. Wheeler, 449 W. 42nd St.	Paul Dooley, 420 E. 16th St.
Poughkeepsie	Hudson Valley	Roswell Coles, 76 Maiden Lane.	G. D. Munger, 52 Market St.
Rochester	Rochester	G. Fred Laube, 191 East Ave.	Edw. Vanderlinde, 52 Charlotte St.
Schenectady	Schenectady	L. R. Rogers, 13 Jay St.	Richard Spengler, 421 McClellan St.
OHIO			
Akron	Akron	C. E. Loomis, 248 Water St.	G. L. Sanderson, 640 North Main St.
Canton	Canton	A. S. Koenreich, 209 2nd St. N. E.	L. P. Frantz, 721 Tuscarawas St.
Cincinnati	Cincinnati	Carl S. Zink, 1711 Elm St.	T. J. Donnelly, 3724 Westgate Ave.
Cincinnati	Cincinnati Mot. Spec.	B. A. Wesche, 1628 Vine St.	R. W. Barkley, 838 Reedy St.
Columbus	Columbus	E. E. Evans, 1390 E. Main St.	M. C. Brooke, 90 N. Front St.
Portsmouth	Portsmouth	W. F. Walter, 1549 Tenth Ave.	C. H. Rauch, 845 4th St.
Toledo	Toledo	A. E. DeFrance, 2320 Rosewood Ave.	C. F. Hammer, 314 Richardson Bldg.
Youngstown	Mahoning-Trumbull	E. C. Carlson, 118 E. Front St.	E. C. Ramm, 2222 Market St.
OKLAHOMA			
Enid	Enid	H. B. Storrs, 117 W. Maple St.	F. M. Silver, 216 S. Independence St.
Oklahoma City	Oklahoma City	A. W. White, 422 W. Reno St.	Leon S. Damon, 10th & Robinson Aves.
OREGON			
Portland	Portland	A. R. Johnson, 149 12th St.	J. R. Tomlinson, 219 Weatherly Bldg.
PENNSYLVANIA			
Lancaster	Lancaster County	Ivan Mentzer, Ephrata, Pa.	J. K. Myers, 263 Woolworth Bldg.
Philadelphia	Philadelphia	J. C. Wolf, 2117 Alter St.	W. E. Rubert, 2318 Sansom St.
Wilkes-Barre	Lackawanna and Wyo. Valley	H. F. Hartman, 500 Lackawanna Ave.	G. E. Shepherd, 123 N. Pennsylvania Ave.
SOUTH DAKOTA			
Sioux Falls	Sioux Falls	H. W. Claus, 326 S. Phillips Ave.	Max Nickel, 120 W. 12th St.
TENNESSEE			
Chattanooga	Chattanooga	W. H. Ashmore, 241 E. 11th St.	P. W. Curtis, 709 James Bldg.
Knoxville	Knoxville	G. R. Mend, Flint & Central Aves.	C. R. Wright, 517 W. Church Ave.
Memphis	Memphis	L. H. Lanahan, 327 Butler Ave.	W. W. Rice, 918 Dermon Bldg.

LOCATION	CHAPTER NAME	PRESIDENT	SECRETARY
TEXAS			
Amarillo	Amarillo	G. E. Broome, 515 Tyler St.	J. C. Honea, 115 W. 7th St.
Austin	Travis County	J. O. Andrewartha, 105 E. 9th St.	C. C. Linscomb, 915 Congress Ave.
Corpus Christi	Corpus Christi	G. W. Smith, 619 Mesquite St.	B. F. White, 918 Staples St.
Dallas	Dallas	H. A. Brewster, 409 S. Ervay	C. J. Roesch, 3224 Knox Ave.
El Paso	El Paso	M. F. Bauman, 3508 Morenci St.	Art Wilke, 3222 Louisville St.
Fort Worth	Fort Worth	J. L. Hensley, 2245 N. Main St.	Herman Brown, 202 E. 11th St.
Harlingen	Lower Rio Grand Valley	K. E. Hallman, 222 N. Sam Houston St.	Ernst Barth, 217 E. Harrison St.
Houston	Houston	J. S. Copeland, 1307 Bell Ave.	W. H. Kirk, 4009 Main St.
Lubbock	Lubbock	F. A. White, 1411 8th St.	Claude Wilson, 1301 19th St.
Mercedes	Hidalgo County	W. F. Wortham, 4th & Missouri Ave., Weslaco, Texas	H. L. Scott, 318 Ohio Ave., Mercedes, Texas.
San Angelo	San Angelo	R. F. Bullock, 24 S. Chadbourne St.	L. F. Heitzler, 5 S. Chadbourne St.
Temple	Temple	D. D. Walton, Box 81	G. D. Nichols, 1018 S. 11th St.
Waco	Waco	Claude Doyle, 704 Austin Ave.	G. H. Lane, 1020 Austin Ave.
Wichita Falls	Wichita Falls	J. N. Oeschner, 809 Brook St.	H. F. Sprinkles, 808 7th St.
UTAH			
Salt Lake City	Northern Utah	R. P. Maybee, 16 W. 7th St.	R. E. Folland, 16 W. 7th St.
VERMONT			
Burlington	Chittenden-Franklin	A. E. Sherwin, 92 Church St.	T. W. Matthewson, 10 N. Winooski Ave.
Rutland	Rutland County	A. S. Reed, 42 Center St.	C. E. Oakman, 11 Merchants Row.
Waterbury	Washington Co., Vt.	R. F. Britain, 22 East St., Northfield, Vt.	R. M. Eagan, 14 Stowe St., Waterbury, Vt.
Windsor	Windham-Windsor	H. F. Hemenway, 60 Main St., Springfield	Stuart R. Strong, Windsor, Vt.
VIRGINIA			
Charlottesville	Charlottesville	T. C. Ritchie, 319 E. Main St.	R. R. Case, 114 4th St. N. E.
Danville	Danville	D. L. Lewis, 224 Main St.	R. G. Clarke, 545 Main St.
Lynchburg	Lynchburg	J. D. Hickok, 601 5th St.	Irby Hudson, 519 Main St.
Roanoke	Roanoke	W. J. Pearman, 23 Franklin Road S. W.	C. C. Coon, 28 W. Church Ave.
WEST VIRGINIA			
Charleston	Charleston	J. B. Hunt, 616 Charleston Nat'l Bank Bldg.	L. P. Harvey, 161 Summers St.
Huntington	Huntington	C. L. Walker, 532 9th St.	G. L. Hawes, Box 1183.
WISCONSIN			
Appleton	Fox River Valley	E. A. Killoren, 116 South Superior St.	A. A. Schneider, 231 E. College Ave.
Fond du Lac	Fond du Lac	A. A. Kaufman, 48 N. Main	C. F. Krueger, 107 N. Main St.
Kenosha	Kenosha	Henry Herrema, 2311 63rd St.	D. G. Speaker, 4726 7th Ave.
Milwaukee	Milwaukee	R. R. Knoerr, Jr., 1015 N. Milwaukee St.	E. H. Herzberg, Bus. Mgr., 1602 W. Wells St.
Racine	Racine	A. C. Larsen, 408 West Blvd.	F. H. Patrick, 1545 West Blvd.
CANADA			
Winnipeg	Manitoba	A. H. Polden, 52 Albert St.	A. E. Godsmark, 611 Confederation Life Bldg.

UNAFFILIATED LOCALS

LOCATION	NAME OF ASSOCIATION	PRESIDENT	SECRETARY
CONNECTICUT			
New Haven	Elm City Electrical Contractors Association	A. W. Smith, 874 State Street.	H. M. Thomson, 257 Orange St.
GEORGIA			
Savannah	Electrical Association of Savannah	Norton Frierson, 243 Whitaker St.	J. M. Braswell, 210 Whitaker St.
ILLINOIS			
Decatur	Decatur Electrical Contractors Association	W. H. Jennings, 100 E. Eldorado St.	E. A. Weatherford, c-o Rex Elec. Co.
Joliet	Electrical Contractors of Northern Illinois	C. W. Berger, 212 E. Jefferson St.	Otto Pederson, Chicago Heights.
Rockford	Better Business Bureau	Ted Hunter, Loves Park.	
INDIANA			
Muncie	Associated Electrical Contractors of Muncie	Karl E. Nutting, Nutting Elec. Co.	Chas. T. Stake, 202 S. Mulberry St.
South Bend	Association of Electrical Contractors	C. E. Colip, 114 W. Wayne St.	C. A. Luston, 119 E. Jefferson Blvd.

LOCATION	NAME OF ASSOCIATION	PRESIDENT	SECRETARY
KANSAS			
Concordia	Electrical Contractor-Dealer Association	Rex Ramsey, Hutchinson, Kans.	Chas. Shrake, Topeka, Kans.
MASSACHUSETTS			
Boston	Sec. 18 Electrical Guild of North America	Alfred J. Hixon, 22 Elkins St.	Chas. A. Rounds, 15 School St.
Everett	Electrical Association	R. H. Erb, 384 Main St., Everett, Mass.	R. P. Everett, 157 Pleasant St., Malden, Mass.
Malden	(Same as Everett)		
Medford	(Same as Everett)		
Melrose	(Same as Everett)		
MINNESOTA			
Fairmont	Southern Minnesota Electrical Association	J. W. Hruska, Mankato, Minn.	Wm. A. Ritt, St. Peter, Minn.
NEW JERSEY			
Newark	Northern N. J. Electrical Contractors Association	Fred Rossiter, 11 Hill St.	Harvey Fleiman, K. W. Elec. Co. 49 Lawrence St.
NEW YORK			
Brooklyn	Electric Club of Brooklyn, Inc.	John A. Walker, 1116 Bedford Ave.	John Wilhelm, 473 58th St.
Hempstead	Electrical Contractors Assn. of Nassau-Suffolk Counties, Inc.	C. D. Cottrell, School St. Glen Cove.	Whitson McKay, 210 Kellum Place, Garden City, L. I.
Jamestown	Jamestown Electrical Contractor-Dealers Association	W. H. Knapp, S. Main & Taylor St.	Henry N. Lund, 309 Main St.
New York City	Associated Electrical Contractors of New York	A. Lincoln Bush, Chrysler Bldg.	
	Independent Associated Electrical Contractor-Dealers, Inc.	John Jay Bauer, 157 East 52nd St.	Geo. W. Neil, 71 Eighth Ave.
	Bronx Electrical Contractors Association, Inc.	Fred Meyer, Jr., 647 E. 234th St.	Joseph Edelmuth, 1046 Jackson Ave.
	Master Electricians of Staten Island	Jos. J. Keller, 1851 Clove Ave., Stapleton, S. I.	A. Egbert, Corson Place, Tompkinsville, S. I.
Syracuse	Electrical Contractors' Association of Syracuse	T. D. Holihan, Eckel Theatre Bldg.	F. P. Edinger, 804 E. Water St.
OHIO			
Cleveland	Sec. 1 Electrical Guild of North America	W. R. Grant, 2733 Prospect Ave.	H. E. Merrell, 3354 Superior Ave.
Cincinnati	Cincinnati Electrical Contractors Association	Wm. H. Dimmett, 203 W. McMillan St.	J. Fred Riehle, 1642 Cedar St. College Hill.
Dayton	Electrical Contractors Association of Dayton, Inc.	Chester Lesher, 29 E. 1st St.	Clarence Carey, 1107 S. Brown St.
PENNSYLVANIA			
East Stroudsburg	Lehigh Valley Electrical Association, Inc.	R. H. Bauchspies, Lehighton, Pa.	A. W. Reinert, 139 N. 7th St., Allentown, Pa.
Harrisburg	Harrisburg Electrical Contractors'-Dealers Assn. of Harrisburg and Vicinity	Chas. M. Davis, 600 N. Second St.	Raymond Snyder, 760 No. Front St., Steelton, Pa.
Milton	Susquehanna Electric Engineering Society	Geo. E. Keller, Bloomsburg, Pa.	Wm. Zanzinger, Bloomsburg, Pa.
Norristown	Norristown Electrical Contractors Association	Wm. Hogan, Curren Arcade.	W. S. Musselman, 506 Swede St.
York	Electrical Contractor-Dealers Association of York County	H. B. Reisinger, 720 Roosevelt Ave.	Ross McAffel, 123 E. Princess St.
RHODE ISLAND			
Providence	Master Electrical Association	A. V. Bartlett, 126 Dorrance St.	F. A. Brown, 383 Benefit St.
TEXAS			
San Antonio	The Electrical Engineering Corporation	Martin Wright, 1001 Navarro St.	Frank Schroeder, 508 Central Bldg.
WASHINGTON			
Seattle	Electrical Contractors Association	J. J. Agutter, 316 Seneca St.	
WISCONSIN			
Madison	Madison Electrical Contractor-Dealers Association	Albert Endres, 211 W. Mifflin St.	Wm. C. Schlosser, 323 E. Wilson St.
Sheboygan	Electrical Contractor-Dealers Association	Paul Honold, 823 Penn. Ave.	G. W. Fedler, 829 Michigan Ave.
Superior	Superior Electrical Contractors Association	Frank Mahan, 3rd & Ogden Ave.	R. W. Springer, 1225 Tower Ave.
CANADA			
St. Catherines, Ont.	St. Catherines District Electrical Contractor-Dealers Association	J. H. Sandham, 179 St. Paul St.	Frank Mackenzie, Vine Street.
Vancouver, B. C.	Vancouver Association of Electragists	C. H. E. Williams, 509 Richards St.	J. C. Reston, 579 Howe St.

132 Causes of Electric Fires

The tentative report of the "Investigation of Electrical Fires" by a committee of the I.A.E.I., W. E. Bostwick, chairman, lists 132 causes for electrical fires broken down into 10 types. While this list is for the purpose of providing a standard classification for inspectors investigating fires, they help contractors selling quality work. They also provide an excellent reason why contractors should make periodical inspections of customers' premises.

STANDARD CLASSIFICATION OF FIRES OF ELECTRICAL ORIGIN

This form groups electrical fires into 10 types listed in column A. In column B the type is either subdivided or some other descriptive detail added. In column C all of the actions or conditions that are known causes of electrical fires are listed.

A	B	C
Arcs or Sparks	Occurring on equipment having a tendency to create same during operation.	Enclosure defective or left open. Failure to provide enclosure. Hazardous location Class I ..... } Equipment not Class II ..... } approved for use in Class III ..... } this location. Maintenance improper: Failure to keep clean.
	Resulting from broken wires or connections.	Careless handling. Corrosion as a result of moisture. Corrosion as a result of acid or fumes. Injury: Accidental after installation. Injury: By mechanics when installed. Injury: Resulting from ordinary service. Manufacture defective. Storm. Terminal connection improperly made. Terminal screws loose. Unknown. Vibration due to defective fastening. Vibration due to location.
	Breaking lamps.	Careless handling. Guard not approved. Guard not provided. Guard approved: Breakage due to unusual conditions. Manufacture defective. Unknown.
	Accidental Contact.	Careless handling. Guard or enclosure not approved. Guard or enclosure not provided.
Contacts Heating or Arcing	Of equipment carrying current under normal operating conditions. Does not apply to grounding connections.	Corrosion as a result of moisture. Corrosion as a result of acid or fumes. Heat: Location excessively hot. Injury: Accidental after installation. Injury: By mechanics when installed. Injury: Resulting from ordinary service. Joints: Improperly made. Maintenance improper: Failure to keep clean. Manufacture defective or not approved. Mechanical failure: Cause unknown. Oil. Over-loading. Operation of switch or motor starter improper. Terminal connection improperly made. Terminal screws loose. Unknown. Vibration: Due to defective fastening. Vibration: Due to location. Weather proofing not provided.
Crosses	Primary currents entering buildings over secondary wires.	Clearance: Not standard. Falling wires: Cause unknown. Falling wires: Accidental during installation. Falling wires: Installation defective. Falling wires: Storm. Transformer installation failure.
	Resulting in primary currents entering buildings over signal wires.	Clearance: Not standard. Falling wires: Cause unknown. Falling wires: Accidental during installation. Falling wires: Installation defective. Falling wires: Storm.
	Resulting in foreign currents entering buildings over signal wires due to contact between signal wires and secondary light and power wires.	Clearance: Not standard. Falling wires: Cause unknown. Falling wires: Accidental during installation. Falling wires: Installation defective. Falling wires: Storm.
	Resulting in currents from secondary lighting and power wires entering buildings over radio aerial.	Clearance: Not standard. Falling wires: Cause unknown. Falling wires: Accidental during installation. Falling wires: Installation defective. Falling wires: Storm.
Grounding Defective	Applies to any defect on the grounding of interior wire ways; wire way attached to outside of building, also fixtures.	Conduit system not continuous. Corrosion: As a result of moisture. Corrosion: As a result of acid or fumes. Fittings loose: Lock nut, coupling, bushings, etc. Ground clamps loose. Ground connection omitted. Ground connection not approved. Ground: Driven type: Improperly made. Ground: Driven type: Resistance high due to location. Ground connections: Removed or damaged. Unknown. Vibration.
	Applies to any defect on the grounding or failure of ground on Service Co.'s distributing equipment.	Corrosion: As a result of moisture. Corrosion: As a result of acid or fumes. Ground clamps loose. Ground connection omitted. Ground connection not approved. Ground: Driven type: Improperly made. Ground: Driven type: Resistance high due to location. Ground: Connection: Removed or damaged. Unknown.
Heating Appliances Including Lamps	Left in circuit unattended and in contact or too close to combustible material.	Careless handling. Pilot light not provided. Pilot light out of order.
Insulation Failure	Of wires or windings.	Acid or acid fumes. Heat from lamps. Heat: Location excessively hot. Injury: Accidental after installation. Injury: Failure to use proper fittings. Injury: By mechanics when installed. Injury: As a result of ordinary service. Manufacture defective. Manufacture defective: Not approved. Moisture: Failure to make weatherproof. Moisture: Due to condensation. Moisture: Due to leaking roofs or piping. Oil. Taping defective. Unknown. Vibration: Due to defective fastening. Vibration: Due to location.
Lightning	Entering buildings over lighting, power, radio or signal wires.	Lightning arresters not provided. Lightning arrester not approved. Discharge in excess of arrester capacity. Unknown.
Motion Picture Film Ignition	Film stopped in light rays of projector.	Film defective. Sprockets defective. Mechanism other than sprockets defective. Unknown.
	Ignited by contacts with hot eletrical equipment or other objects.	Lamps. Lamp house. Carbons. Smoking. Unknown.
Over-loading	Of wires, winding or other current carrying equipment.	Automatic Protection: Capacity of wire less than 15 amperes. Automatic Protection: In excess of capacity. Careless handling. Connections in error. Locked Rotor: Due to single phasing. Locked Rotor: Other than single phasing. Switch mechanism on automatic control defective. Unknown.
Unapproved Wiring Method	Does not include cases of approved materials installed in an unapproved manner or the omission of fittings.	Cord as line wires. Other unapproved methods.

Electrical Contracting

With which is incorporated The Electragist

S. B. WILLIAMS, Editor

The Convention

AGAIN it is convention time and as this issue comes off the press members of the Association of Electragists from different parts of the country are traveling towards Hot Springs, Ark., where their Thirtieth Annual Convention will be held October 4, 5 and 6.

What will the convention accomplish? Will it pass resolutions of praise or condemnation of this or that practice and then go home? Or will it lay the foundation for a program of action that will benefit the electrical contracting industry?

There are certain phases of the program which should be of lasting value. For one thing the convention will be asked to approve a proposed standard licensing ordinance. In one week in September we received two requests for help in formulating a local licensing ordinance. As the season advances these requests will become more numerous. A standard ordinance is a necessity.

The first draft of the association's work on house wiring adequacy standards will be presented to the convention. These standards, while they will not of themselves bring business, are very necessary in that they point the way for approach to higher levels of adequacy. It is hoped that the association will not permit these standards to be submitted to any other body where they might be modified. These are basic and should not be altered for any expedient of the moment.

This convention has the opportunity of making history. One hundred cities are now organized with Electragist Chapters—ready to carry out the will of the convention. Give them work to do. Let the convention decide on a program of association activity of help to the contractors and let the chapters carry it out.

With these hundred chapters and more that will be organized there is not much that the Electragists cannot do. This is their opportunity!

Getting Around the Code

A RATHER clever way of getting around the provisions of the National Electrical Code is now apparently receiving the attention of certain power companies.

Under Article 1 of the Code, the word "Approved" is defined as: "Acceptable to the authority enforcing this Code."

This is interpreted by certain power companies to mean that anything approved by the local inspection department is in accordance with the Code.

It is, of course, needless to say that such an interpretation is entirely contrary to the thinking of the makers of the Code. When this definition was written it was a compromise. Many members of the Electrical Committee wanted the definition of the word "approved" to clearly state the approving agency or agencies. Others fought it with the result that the compromise rule was written into the Code.

It is interesting, however, to see how the power companies are taking advantage of this loop-hole to secure approval for unapproved wiring methods and materials.

The contractors should make sure that inspectors who give their approval to substandard wiring methods or materials have done so honestly. We have always believed that an inspector's decision should be unbiased and for that reason we have hesitated to urge contractors to use the political force of themselves and their men to keep inspectors in line; but we do believe that inspectors should be required to uphold and enforce the Code.

Range Wiring Standards

WE have been frequently asked how much it would cost to install an electric range. To wire for a range costs anywhere from $25.00 to $100.00, depending upon several conditions. There are variations due to labor wage rates, the type of building construction, the materials used but most of all due to the hook-up.

When the cost to install an ordinary electric range goes beyond $50.00 it is evident

that a sales barrier at once is thrown up against the advancement of this market. We can take it for a certainty that this barrier is going to be lowered. Shall it be done in an orderly or a disorderly way?

There should be a study of current methods and the possibility of adopting one of them or of finding one that will provide a safe and practicable installation at a minimum cost. For those who want better than the minimum a second standard can be recommended and, likewise, a third standard for those who want only the best irrespective of price.

The General Electric Company, in its exhibit on range wiring which was shown at the inspectors' meeting last month in Pittsburgh, has done much of the preliminary work for the industry and very effectively. This exhibit shows graphically the large number of ways in which range wiring is now being done, in a manner to impress one with the need for such a standard.

Certainly unless the industry quickly develops such a standard one power company after another will attempt to set up local low cost range wiring standards without very much regard for the Code.

A standard such as we have been advocating for more than a year will take away the curse of a too high installation charge and will permit the range business to go ahead rapidly and bring millions of dollars of additional business to the contractors.

THE HONOR ROLL

TO hold to an ideal, to have faith in cooperation, to be a part of a movement to improve conditions in one's own industry for a quarter of a century without a break is an achievement that calls for recognition. And, so at this time when the Association of Electragists is celebrating its thirtieth birthday, we do honor to the ninety-four electragists who have been members of that organization continuously for the past 25 years. In the list which follows are the names of sixteen active and four honorary members who were charter members. Those names are starred:

*Charles L. Eidlitz, New York City.
*John R. Galloway, Washington, D. C.
*E. McCleary, Detroit, Mich.
*W. H. Morton, Boston, Mass.
Charles N. Shannon, Denver, Colo.
The J. Warren Gay Electrical Co., New London, Conn.
E. C. Gramm, Washington, D. C.
Blumenthal Sons & Co., Chicago, Ill.
Ernest Freeman, Chicago, Ill.
Henry Newgard, Chicago, Ill.
J. N. Pierce, Chicago, Ill.
John W. Steinmetz, Chicago, Ill.
William McGuineas, Chicago, Ill.
E. E. Gibson, Decatur, Ill.
Electric Construction & Machinery Co., Rock Island, Ill.
A. L. Swanson, Evansville, Ind.
F. W. Edmunds, Fort Wayne, Ind.
Hatfield Electric Co., Indianapolis, Ind.
G. M. Sanborn, Indianapolis, Ind.
H. J. Towner, Des Moines, Iowa.
C. M. Smith, Dubuque, Iowa.
C. S. Barnes, New Orleans, La.
I. G. Marks, New Orleans, La.
Robley S. Stearnes, New Orleans, La.
The Geo. W. Walther Co., Inc., Baltimore, Md.
R. S. Earle, Boston, Mass.
Herbert A. Holder, Boston, Mass.
Herbert S. Potter Co., Boston, Mass.
W. K. Tuohey, Springfield, Mass.
J. P. Coghlin, Worcester, Mass.
Peter V. Latour, Worcester, Mass.
J. J. Shoebottom, Detroit, Mich.
J. E. Averbach, Detroit, Mich.
Miller-Seldon Electric Co., Detroit, Mich.
*G. M. Jones, Minneapolis, Minn.
B. R. Nelson, Kansas City, Mo.
R. B. Randall, Kansas City, Mo.
*Fred B. Adam, St. Louis, Mo.
Edward P. Allison Co., Inc., St. Louis, Mo.
F. E. Briner, St. Louis, Mo.
William A. Koeneman, St. Louis, Mo.
*F. E. Newbery, St. Louis, Mo.
E. C Bennett, Omaha, Nebr.
Charles H. Austin, Nashua, N. H.
Paul H. Jaehnig, Newark, N. J.
Henry Venino, Newark, N. J.
*F. W. Newman & Sons, Inc., Albany, N. Y.
John L. Kruger, Brooklyn, N. Y.
George Weiderman, Brooklyn, N. Y.
*Bison Electrical Co., Inc., Buffalo, N. Y.
Richard Wahle, Buffalo, N. Y.
*McCarthy Bros. & Ford, Buffalo, N. Y.
James D. Robertson, Buffalo, N. Y.
C. F. Sterns, Buffalo, N. Y.
*Harry Alexander, New York City.
*Alliance Electric Co., New York City.
*Blackall & Baldwin Co., New York City.
Joseph Burkhart, New York City.
J. P. Ryan, New York City.
L. K. Comstock & Co., Inc., New York City.
*Conduit Wiring Co., New York City.
*M. J. Levy, New York City.
Theodore H. Joseph, New York City.
*J. P. Hall, New York City.
*Hatzel & Buehler, Inc., New York City
Thomas Hindley & Son, Inc., New York City.
Hoffman & Elias, Inc., New York City
James F. Hughes Co., New York City.
Jandous Electric Equipment Co., New York City.
Jordan Bros., Inc., New York City.
Alfred U. Keedwell & Co., New York City.
J. Livingston, New York City.
F. W. Lord, New York City.
The Maintenance Co. Inc., New York City.
M. S. Blumberg, New York City.
Oneida Electric Co., New York City.
Wm. Creighton Peet, New York City.
E. J. Reid, New York City
L. J. O'Donovan, New York City.
Lawrence L. Strauss, New York City.
*James R. Strong, New York City.
Van Wagoner-Linn Construction Co., New York City.
H. M. Walter, New York City.
Watson-Flagg Engineering Co., New York City.
Alfred Whiteley, Inc., New York City.
*James F. Burns, Schenectady, N. Y.
Edward Joy Co., Syracuse, N. Y.
*James Hilton, Syracuse, N. Y.
J. F. Buchanan & Co., Philadelphia, Pa.
Keller-Pike Co., Philadelphia, Pa.
Walker & Kepler, Inc., Philadelphia, Pa.
The Carter Electric Co., Pittsburgh, Pa.
Prior & Sallada Co., Inc., Williamsport, Pa.
William Slater, Memphis, Tenn.
W. M. Clower, Dallas, Texas.
Winston Electric Construction Co., Richmond, Va.
Herman Andrae, Milwaukee, Wis.
Rohn Electric Co., Milwaukee, Wis.

Code Chats

A Monthly Discussion of Wiring Practice and Questions of Interpretation, Presented with a View Toward Encouraging a Better Understanding of the National Electrical Code - - - -

Conducted by F. N. M. SQUIRES
Assistant Chief Inspector, N. Y. Board of Fire Underwriters

Auto Transformer

Where a plant generates its own power, 220 volts, would the use of an auto transformer for the lighting be objectionable?

If the 220 V a.c. generator has no midpoint which can be grounded, an auto transformer should not be used. In this case a regular transformer having proper secondary voltage for lighting should be used. That is, the transformer may have a 2 wire secondary of 110 volts; or a 3 wire secondary of 110-220 volts.

Neon Sign in Window

Would you permit a neon sign to be hung in a show window where the tube terminals are not enclosed in a metal box, the transformer to be mounted above the window, the high tension leads to be run open on glass supports, or run to the tube terminals through a glass tube, the connection at the ends of the tube to be open and unprotected. The signs may be exposed to mechanical injury.

A gas tube sign if properly constructed and installed could be permitted in a show window. If factory built, only labeled signs should be permitted. The tubes should be so supported as to be free from contact with flammable material. The tube terminals should be enclosed in glass or porcelain. The transformer would have to be located above the window and should be enclosed in an approved grounded metal cabinet or cutout box.

The high tension leads should be of high tension cable designed for the voltage used and should be enclosed in glass or other suitable tubing between the transformer and tube terminals. As these signs are subject to movement during window dressing, a certain amount of flexibility in the leads must be provided for. If, as claimed, the tube terminals had to be open and unprotected, a door switch would be required on the door or doors leading to the window so that when a person entered the window, the current would be cut off at the sign.

Automatic Switch on Disappearing Footlights

An inspector recently issued a violation notice on a disappearing footlight job because no provision had been made to automatically open the circuit when the footlights were closed down to their "disappeared" position. A knife switch had, of course, been provided on the switch board to control the circuit.

Although there is nothing in the Code requiring such a provision, the violation notice was issued on the general principal of the fire hazard presented because in this particular case the lamps themselves were within a wooden enclosure. Naturally, any chance of having them remain lighted while closed down within this flammable enclosure presented a serious fire hazard.

A Code rule to eliminate this hazard would be very beneficial, but inspection departments should not allow such a hazard to remain whether specifically covered or not.

MINNEAPOLIS INSPECTORS ALSO LEAGUE MEMBERS—In order to keep abreast of what the electrical industry is doing, the electrical inspectors of Minneapolis, Minn., have joined the local electrical league and regularly attend all meetings. The inspectors, shown above, are, left to right: C. W. Hampel; O. M. Frykman (chief electrical inspector); F. E. Miller; S. M. Streed; P. J. Johnson; M. J. McGran and H. N. Gallison.

Grounding a Radio Set

A correspondent asks, "What is the proper way to ground a radio set? Would it be dangerous for the set to use the neutral wire of a 110-220 volt system as a ground? Could it burn out the set?"

The Code, with which this column deals, speaks of two ground connections for a radio set, a protective ground and an operating ground. A protective ground is required by rule 3702 (h), and 3702 (k) makes mandatory the use of a cold water pipe where such pipe is available and is in service and connected to street mains. Where a cold water pipe is not available, other connections are permitted but nowhere does the Code permit the use of the neutral of the wiring system as the ground.

There are no requirements set down for the operating ground, but 3702 (m) permits the use of the protective grounding conductor and ground as the operating ground where sections 3702 (k) and (l) have been complied with. In order to comply with the Code, therefore, the neutral should not be used for grounding.

As to the hazard of burning out a radio set through the use of the neutral wire for a ground this depends upon the "hookup" used in the set and also the quality of the materials and devices used. Some sets would be dangerous whether

FATHER AND SONS IN BUSINESS:—Alex F. Jones, Syracuse, N. Y., center, has been a contractor in that city for 23 years. At the left, is Alex F. Jones, Jr., and on the right, Horwood Jones, who have grown up in the contracting business. This firm specializes in better lighting and are distributors for two lines of lighting products. It is easier to do business with Jones as his place of business has an entrance on two streets.

used with the neutral or with or without any kind of a ground. We know that the neutral, if properly grounded, is a thoroughly grounded wire and should make an excellent ground connection but unless we know the wiring system and connections and also the materials used there is no telling what might happen.

One difficulty which has been experienced is through the use of the 110-volt lighting circuit from which to derive plate or "B" current on battery operated or d.c. sets. Everything worked out all right when the circuit was connected to the positive side of the 3-wire system, that is when the positive side and the neutral were used. But when the lighting circuit was taken from the negative side of the system, trouble developed. In this case to get the tubes to operate, the positive "B" (plate) current had to be taken from the neutral and the negative wire would be connected to the B- and filament or common return point of the set and in a good many sets this point was grounded. Of course, when this point was grounded and connected to a negative circuit wire having a voltage of 110 to ground, something had to happen.

However, a set approved by the Laboratories and connected according to the instructions of the manufacturer should be safe.

Switch Required with Fusenter and Safetofuse Panel

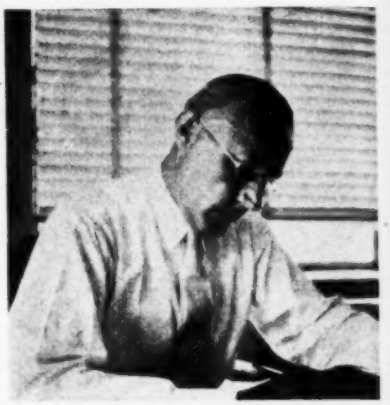
Condition: A large two-story residence. Rigid conduit entrance to weatherproof meter box on outside of building. No switch and no fuse in this box, it merely protecting the meter. Rigid conduit direct from this box to a 6-circuit and range "Bulldog" combination of Fusenter and Safetofuse panel, catalog No. B 61 F.
Question: Assuming that the Code has been complied with otherwise. Is it necessary to have an additional main entrance switch before getting to the Fusenter. Contractor maintains that since the main fuses in the Fusenter can be easily removed an additional switch is not required, and that it was made with that idea in mind. There is no switch in this panel which breaks the main feed wires to it. Local wiring is installed by ordinance under the N. E. Code.

The Fusenter is an enclosed branch circuit cutout. The Safetofuse is combined switch and cutout, also enclosed. The B 61 F referred to above is a combination of the two devices. The Safetofuse panel may be connected in parallel to the Fusenter or in series with it. Generally it is connected in parallel and is used as a branch circuit switch and cutout to control a feeder or a range or some other appliance. When connected in series with the Fusenter it serves as a main switch control and protection device for the Fusenter and should not be used also to protect or control a range, or other device, unless another branch circuit cutout is provided for the range.

The Safetofuse panel, however, cannot be used as a service switch as it does not meet the requirements of an externally operable switch, for when the fuses are taken out, thus operating the device as a switch, live parts are exposed. For a ruling on this we resort to Official Interpretation No. 55 which is as follows:
"Question (a): What is the meaning of 'enclosed and externally operable?'
Finding: Surrounded by a case which will prevent accidental contacts of persons with live parts" and which permits the mechanism of the switch to be opened and closed without exposing the operator to contact with live parts.
Question (b): Is a switch an externally operable one if access to its handle requires the opening of the door of a cabinet or a similar enclosure?
Finding: Yes, if the mechanism of the switch may be opened and closed without exposing the operator to contact with live parts."

Therefore, it will be seen that a service switch and cutout is required ahead of the B 61 F, whether this device is located at the service entrance point or not.

The Bulldog people have incorporated the Safetofuse mechanism into a "Main Service Meter Test Panel" and a "Main Service Meter Switch" in which the mechanism may be operated externally and without exposing any live parts. To renew the fuses it is, of course, necessary to expose live parts, but this latter operation is not part of a normal switch opening operation. This device meets the requirements of a service switch and cutout.



WIRES FEDERAL RESERVE BANK:—Walter F. Weberg, Fort Pitt Electric Co., Pittsburgh, who is wiring the new Federal Reserve Bank of Pittsburgh. One of the features of this job is a main switch board which has a dead front and back. This is one of the first jobs of its kind in the country but it is predicted that many more will be seen shortly. Mr. Weberg devotes considerable time to association work and is president of the Electrical Contractors Association of Pittsburgh.

Fusing of New Service on Old Work

Conditions: One or two circuit dwelling. House was wired many years ago. Both wires black. Polarity not identified. Open double pole, doubled fused entrance switch in use. Two wire open entrance, (on cleats or knobs), 110-220 volt single phase with grounded neutral. Power company catches consumer jumping meter, and demands rigid conduit entrance and meter service switch, which consumer has installed by local contractor.
Question: Should the "hot" wire only be fused and the neutral grounded as in new work? Or, is it O. K. to fuse both sides, and ground the switch box to the neutral, on the street side of the fuse?

Inasmuch as this equipment was installed under former rules before the advent of polarity and single fusing requirements, the whole installation including the service equipment should be kept under those rules. That is, both the "hot" wire and the neutral should be fused.

However, we would suggest that the owner be advised of the safety gained by polarizing the fixtures and

(Continued on page 81)

1931 A.E.I. Chapter Exhibit

A.E.I. Membership located in 447 Cities and Towns in 47 States—6 Provinces of Canada—4 Foreign Countries

72% of A.E.I. Membership organized in 100 local Electragist Chapters having jurisdiction over 237 Cities and Towns

United States and Canada divided into nine A.E.I. electoral Divisions. Each Division elects its representative on the International Executive Committee.

DIVISIONS

Eastern: **(a)**
New England States, New York, New Jersey, Pennsylvania, Delaware, Maryland and District of Columbia.

Southeastern: **(a)**
Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida.

Southern: **(b)**
Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Arkansas, Oklahoma and Texas.

Great Lakes: **(a)**
Michigan, Ohio, Indiana, Illinois and Wisconsin.

Central: **(b)**
Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota and South Dakota.

Mountain: **(a)**
Idaho, Montana, Wyoming, Utah, Colorado and New Mexico.

Pacific: **(b)**
Washington, Oregon, California, Nevada and Arizona.

Eastern Canadian: **(b)**
Ontario and the Provinces East.

Western Canadian: **(a)**
Manitoba and the Provinces West.

(a) *Elect Executive Committeemen in even years*
(b) *Elect Executive Committeemen in odd years*

A.E.I. Chapter Exhibit (Cont.)

OBTAINING CHARTER

Any local association or group composed entirely of members of Association of Electragists, International, may apply to A.E.I. for charter as an Electragist Chapter. Application for charter should be made on special forms furnished by A.E.I.

Application must be approved by majority vote of members of local group applying, and be signed by representatives duly authorized by such group. Copy of resolution authorizing application should accompany application and be sent to office of International Secretary at New York. Copy of Constitution and By-Laws under which the Chapter will operate must accompany application, for approval by the A.E.I. *(Draft form of Constitution and By-Laws may be obtained from A.E.I. as guide in preparing local form to fit needs of local group.)*

Application for charter as a Chapter should specify clearly the territory over which the Chapter desires jurisdiction. This territory should include only such district as can be naturally and economically served by membership in that Chapter—the city, its outlying towns adjacent to the city, or, in certain cases, one or more adjacent counties.

The apportionment of territory to the jurisdiction of Chapter lies within the discretion of the International Executive Committee, and may be changed from time to time.

JURISDICTION OF CHAPTERS

The Chapter has complete jurisdiction over all A.E.I. members who become members of the Chapter.

Applicants for membership in the A.E.I. within the jurisdiction of the Chapter must affiliate with or be approved by the Chapter before becoming eligible in the A.E.I.

The Chapter shall determine the qualifications for membership and determine the fitness of all applicants within its jurisdiction.

Any member of the Chapter who resigns or forfeits his membership in the Chapter, ceases also to be a member of the A.E.I., and any member of the A.E.I. who shall cease to be a member of the A.E.I., shall cease also to be a member of his Chapter.

Subject to the approval of its Constitution and By-Laws by the A.E.I., the Chapter has complete autonomy in the making of its regulations, determination of its local dues and in the conduct of all of its affairs, in conformity with Federal and State laws, or ordinances that are in effect within the jurisdiction of its territory.

VALUE OF CHAPTER ORGANIZATION

Local Chapter directly tied in with the strength of 100 other Chapters throughout the country.

All Chapters may be promptly mobilized to take common action on any matters affecting the interests of all.

Through such Chapter organization the electrical contractors are, for the first time, putting up a solid front to the industry.

Problems of local origin may be submitted to the A.E.I. for national or international action.

Effective measures adopted in one territory to improve trade conditions are passed on through the A.E.I. to all other Chapters.

Policies or practices of national manufacturers or wholesalers, which could not be changed by isolated local action, can be directly influenced by united action of all Chapters through the A.E.I.

Policies of the electrical contracting industry, determined by A.E.I. councils and action at conventions, are made effective through the Chapters.

Have you an A.E.I. Chapter in your city?
Are you a member of that A.E.I. Chapter?
If there is no Chapter, are you an Electragist?

Two NEW

BENJAMIN

Business Builders

Benjamin UTILITY Floodlight

High-powered portable floodlight projector. Aluminum body. In addition to a cast iron base for regular horizontal and vertical mounting, it is furnished with an iron spike for setting in the ground. Equipped with 6 feet of weatherproof cord and Belden connector. A simple focusing mechanism for adjustment for the two types of lamps and for quick and accurate spotting. Amber, red, green and blue color lenses available.

For 150 and 200-watt Lamps

List $12.85

Benjamin JUNIOR Floodlight

Meets the demand for a low-priced, thoroughly weatherproof and weather-resisting floodlight for decorative lighting and general purpose lighting.

Porcelain enamel, inside and out, with heat-resisting glass cover. Cast iron base for regular horizontal and vertical mounting, and fitted with a spike for setting in the ground. Four foot connector and plug.

* * *

These units tie in particularly well with the nation-wide "Decorate with Light" activities now being inaugurated. Especially adaptable for holiday, festival and Christmas lighting plans.

Packed one-to-a-carton, and may be readily displayed and demonstrated. The list price is extremely low.

Write quickly for full description, samples and listing. This is an item for which there is a wholesome demand and the sooner you begin to cash in on it the more substantial will be your turnover and profit.

For 100-watt Lamps

List $5.85

BENJAMIN ELECTRIC MFG. CO.

General Offices and Factory:

DES PLAINES (Chicago Suburb) ILLINOIS

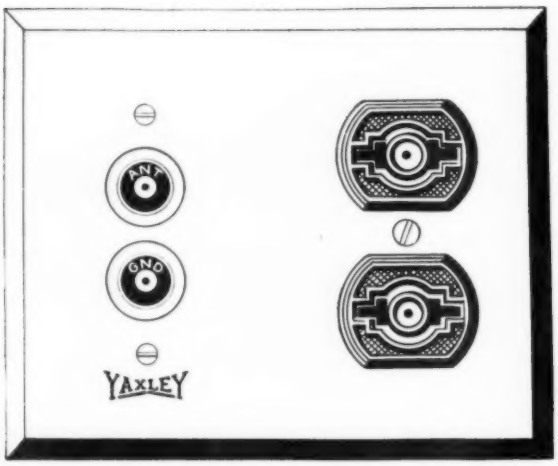
Divisional Offices:

New York
247 W. 17th St.

Chicago
111 No. Canal St.

San Francisco
448 Bryant St.

We Say It's a Contractor's Job



No. 256—Antenna and Ground and Duplex A. C. Receptacles—Complete, with Two Plugs. Brass or Bakelite

LIST $1.50

Installing YAXLEY Radio Convenience Outlets

NEW LOW PRICES

No. 135—Loud Speaker—Brass	$0.90
No. 135B—Same as above—Bakelite	.90
*No. A133—Antenna and Ground, with A. C. Receptacle, Box and 2 Plugs, Brass	1.70
*No. A133B—Same as above—Bakelite	1.70
*No. 133—Antenna and Ground, A. C. Receptacle and 2 Plugs, Brass	1.35
*No. 133B—Same as above—Bakelite	1.35
No. 136—Antenna and Ground—Brass	.90
No. 136B—Same as above—Bakelite	.90
*No. A241—Antenna and Ground, and Duplex A. C. Receptacles, with Box and 2 Plugs, Brass	2.50
*No. A241B—Same as above—Bakelite	2.50
No. 241—Antenna and Ground, and Duplex A. C. Receptacles, with 2 Plugs, Brass	2.00
No. 241B—Same as above—Bakelite	2.00
*No. A242—Loud Speaker and Duplex A. C. Receptacles, with Box, Brass	2.50
*No. A242B—Same as above—Bakelite	2.50
No. 242—Loud Speaker and Duplex A. C. Connections, Brass	2.00
No. 242B—Same as above—Bakelite	2.00
*No. 156—Antenna and Ground, with 2 Plugs, Brass	.75
*No. 156B—Same as above—Bakelite	.75
*No. A256—Antenna and Ground, and Duplex A. C. Receptacles, with Box and 2 Plugs, Brass	2.00
*No. A256B—Same as above—Bakelite	2.00
*No. 256—Antenna and Ground, and Duplex A. C. Receptacles, with 2 Plugs, Brass	1.50
*No. 256B—Same as above—Bakelite	1.50

*New numbers. All outlets with boxes Listed as Standard by Underwriters' Laboratories.

Ever since the inception of Radio Convenience Outlets, and Yaxley was the pioneer, we have consistently stuck to the policy of recommending their installation by the electrical contractor.

More than this, Yaxley always sells through the contractor and dealer—we do not believe in direct factory sales to the customer.

And these Yaxley Radio Outlets have always been designed and built to conform to the most rigid of electrical standards while meeting the fine requirements of radio service.

New Numbers

New Low Prices

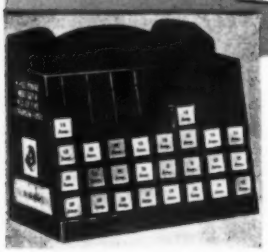
Yaxley Radio Outlets have always been abreast of or in advance of modern radio requirements. The new numbers and the new low prices maintain this policy. You should be fully informed in order to take advantage of this immediately. Write today for full information.

YAXLEY MANUFACTURING COMPANY

1528 West Adams Street **Chicago, Ill.**

ALL YAXLEY RADIO OUTLETS WITH BOXES LISTED AS STANDARD BY UNDERWRITERS' LABORATORIES

Everybody Sees It · · · *and believes it* · · *this New* JEFFERSON Plug Fuse Display



Back view of the New Jefferson Display Container. Stock is neatly stacked in the most convenient place for quiet, cheap care of trade.

Nearly everyone uses them—but few remember to buy fuses until the lights go out. Thus the 4-color lithographed Jefferson Display is a sure-to-be-noticed reminder of a need everyone knows will come sometime.

In addition to selling Jefferson "Fuses for the Home" it cuts the cost and work—it being an easy-to-reach counter rack for your stock of improved Jefferson Fuses.

The new Jefferson Fuse has an Insulator Top of porcelain, one of the best non-conductors known. Women customers welcome this assurance that Jefferson Fuses are safe to change.

The top is black, the window of clear mica is large, and the element specially formed—and for these reasons, a glance always tells whether a fuse is blown.

This salesman which won't be missed or doubted, is supplied as part of the P-1 Assortment (100 fuses of most common capacities) at $3.25—or the P-2 Assortment (200 fuses) at $6.25 net. Wholesalers have them.

Note the Insulator Top of black porcelain for safety—the large, clear mica window, which with specially formed element and black top shows at a glance the condition of the fuse.

Jefferson Electric Company
1503 W. 15th Street **Chicago. Ill.**

JEFFERSON

FUSES FOR THE HOME

Make DOUBLE PROFITS★ . . . . ON RANGE UNIT REPLACEMENTS

★ *Profit on Chromalox Units . . . Profit on Installation*

No need to wait for "building" to come back, Mr. Contractor! There's a double profit for you right today in the sale and installation of Chromalox Super-Speed Range Units. Almost every range owner is a prospect. Here's how to do it. Call on people to whom you've sold ranges, and other range users in your community. Show them a sample of this speedy, efficient and durable replacement unit. They'll quickly see the big difference, will want you to install one on their range. You'll soon get calls to come back and completely Chromalox-equip one range after another. Dozens of dealers are making real profits this way. You, too, can do it. Mail the coupon today—start getting your share of this profitable business with Chromalox* Super-Speed Units.

CHROMALOX SUPER-SPEED MODERNIZE ANY RANGE

Hundreds of electrical contractors are finding it highly profitable to show customers how to modernize their electric ranges this quick, easy and economical way.

SATISFIES CUSTOMERS

Chromalox Super-Speed Range Units combine all of the good points of both previous open and closed type units: (★) Reasonably Priced. (★) Easily Installed—no fuss or muss. (★) Heat Faster, More Efficiently, More Economically—use less kilowatt hours. (★) Operate at Visible Red Heat. (★) Smooth, Flat Top—chromium alloy heating surface. Direct contact between utensil and heating element increases cooking efficiency. (★) Fully Enclosed Heating Elements protect operator. Shock-proof—no exposed wires. (★) Strong, Durable, Long-Lived—maintain original heating efficiency. (★) Withstand daily wear and tear. Pots and pans cannot damage units. (★) Safe—each heating element can be individually grounded. (★) Easily Cleaned—chromium reflector.

FREE WINDOW DISPLAY

This colorful, Flashing Electric Display is helping bring range owners into dealers' stores—everywhere. You can get one FREE. Mail coupon for details about this and other sales helps.

. . . MAIL THIS COUPON WITH YOUR LETTERHEAD . . .

To Edwin L. Wiegand Co., 7585 Thomas Blvd., Pittsburgh, Penna.

Without obligation, please send us complete data about Chromalox Super-Speed Range Units including ( ) Prices, Quantity Discounts ( ) Boiling Speed Tests Report ( ) Sales Helps, Window Display, etc.

Also ship us for 10 days' FREE examination and test the following units. We agree to return these units, postpaid, in 10 days; otherwise charge them to our account less 30% discount.

_____ 1000-watt units to fit (Model and Make of Range) _____ @ $6.90 each

_____ 1200-watt units to fit (Model and Make of Range) _____ @ 8.00 each

_____ 1500-watt units to fit (Model and Make of Range) _____ @ 8.30 each

_____ 2000-watt units to fit (Model and Make of Range) _____ @ 8.75 each

Signed _____ Position _____

Please Check ☐ Dealer ☐ Contractor-Dealer

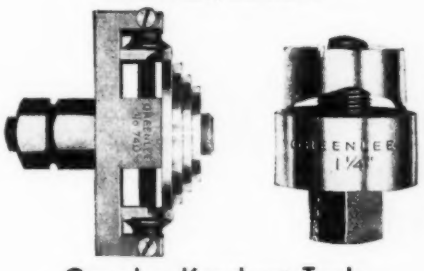
Use These Time Savers on Your Next Bending Job

WHY not save many hours of tedious labor on your next contracting job by using a Greenlee Conduit Bender? These machines bend conduit swiftly and easily, leaving a bend that is round and true with little or no distortion in the metal. In addition they save the cost of manufactured bends and many fittings and permit easier pulling of wire and cable. Bending is accomplished by hydraulic pressure, forcing a shoe against the conduit. The piece being bent is held by two rotating support castings arranged to accommodate different sizes of conduit.

These machines are light for the work they do and can easily be carried from place to place. Conduit is bent horizontally, so that any length can be put into the machine without running against the floor. There is practically no limit to the degree of bend. The Greenlee No. 770 and No. 775 Benders are for standard conduit and standard strength pipe. The No. 770T is for thin-wall steel conduit. Both machines are easy to operate and are designed to stand up under heavy bending work.

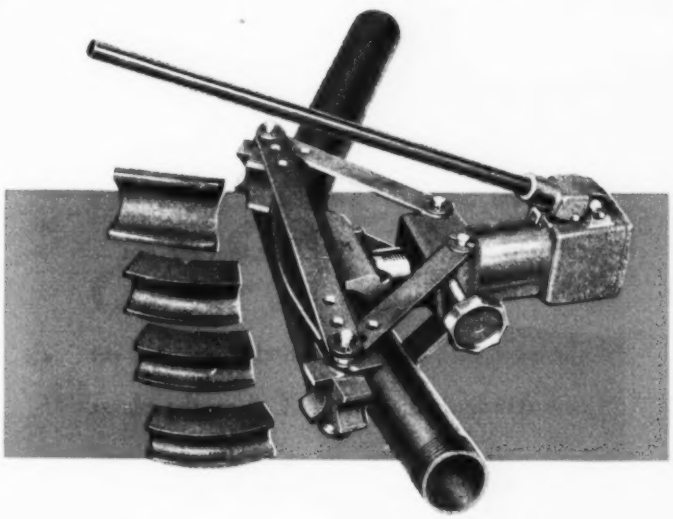
Any contractor interested in lowering his costs will find that these Greenlee machines are real money makers. Hundreds of contractors are earning more money with them every day. Many find that a Greenlee Bender more than pays for itself on one job. Write for details and prices, also for your discount.

GREENLEE TOOL CO.
ROCKFORD, ILLINOIS



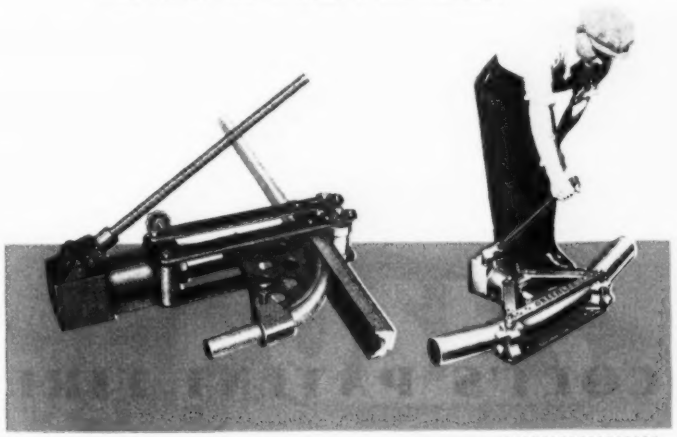
Greenlee Knockout Tools

Used for enlarging holes in switch and circuit cabinets, panel boards, etc. Leave clean, round holes . . . No Drilling . . . No Filing. No. 735 Knockout Punch enlarges holes to fit ½, ¾, 1 and 1½-inch conduit. No. 737 cuts holes for 1½ and 2-inch conduit. No. 740 Knockout Cutter enlarges holes to fit 1½, 2, 2½ and 3-inch conduit.



Above is shown a Greenlee No. 770 bending a piece of 3-inch standard conduit. Notice how the conduit is held by the rotating support castings, while the shoe is pushed forward by the piston. The handwheel returns the piston to its starting position.

Below is shown a Greenlee No. 770T Thin-Wall Steel Conduit Bender. The conduit is supported by a formed bar which moves to the right as power is applied to the shoe. As the operation is performed, the follow bar supports the conduit at the point of pressure, preventing kinking and distortion. The power unit for this machine is exactly the same as the one used on the No. 770. Both are interchangeable, the only thing necessary being the buying of extra attachments.



10-31

GREENLEE TOOL CO., Rockford, Illinois

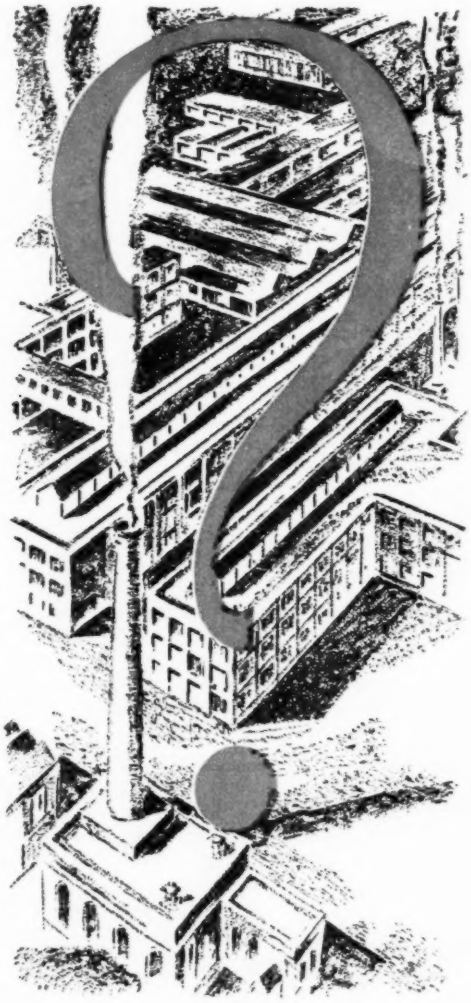
Please send complete information and prices on: ☐ Knockout Tools ☐ Conduit Benders

Name.....

Street ..... City .....

Name of Jobber.....

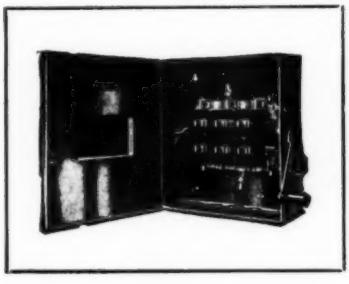
Forgotten



Where is the safety campaign of yesterday? Are all manufacturing plants fully equipped with real SAFETY Switches? Surely you can find many in your locality that are not.

The new Underwriters' Switch tests have set new standards of safety. Call on the plants in your section that are using obsolete and hazardous switches and sell them that extra margin of SAFETY found in COLT-NOARK Quadbreak Switches.

The Colt representative in your section is ready and willing to help you with this kind of work. Just send us your name and address and let us show you how we can help you get some of this business.



COLT'S PATENT FIRE ARMS MFG. CO.

PIONEERS OF PROTECTION SINCE 1836

ELECTRICAL DIVISION HARTFORD, CONN., U. S. A.

BOSTON CHICAGO NEW YORK PHILADELPHIA SAN FRANCISCO

EC-2

Suggested
RESALE PRICES
for Wiring Supplies

The prices listed on the following pages are merely suggested resale prices for the commonly used standard supplies and equipment employed in electrical construction work. They are based on average current trade costs throughout the country, very largely obtained from jobbers' price sheets, and are also based on average overhead charges.

* * *

Obviously, prices can be suggested only for the widely used products that are nationally distributed, and under no circumstances is this section intended to function as a directory of products or manufacturers.

* * *

The publishers wish to again emphasize that these are merely ***suggested*** resale prices and while every effort is made to make them universally applicable and accurate we cannot guarantee them or assume any responsibility for errors.

* * *

The prices appearing in this section will be completely revised each month as trade prices may change.

These prices apply only to the United States.

Index

To Suggested Resale Prices

Suggested Resale Prices for Wiring Supplies

These are merely suggested resale prices for the commonly used products that appear regularly on jobber price lists. They are figured on generally accepted principles for computing resale prices and should cover average conditions but are not guaranteed. (See note on title page.)

A-SUNDRIES

ASBESTOS

Asbestos Millboard—Per Pound—30c.

ANNUNCIATORS

House-Surface Type—Hand Reset

No. Drops	Ansonia Wood	Ansonia Metal	Edwards Dixie No. 81 or Faraday No. 373	Edw. & Faraday White Enamel	P. & W. Competition	P. & W. Automatic
2	$ 8.25	$11.00	$ 9.85	$13.00	.....	.....
3	9.35	12.45	11.60	14.80	.....	.....
4	10.90	13.60	13.05	16.40	$13.20	$16.50
5	12.65	14.85	.....	.....	.....	.....
6	13.60	16.10	16.40	19.40	16.50	19.80
8	16.10	18.90	19.40	22.75	19.80	24.75
10	19.00	21.60	22.75	26.00	23.10	29.70
12	21.50	24.25	25.90	29.15	26.40	.....
15	27.00	30.25	.....	.....	.....	.....
16	.....	.....	34.60	40.00	34.65	.....
20	35.90	40.85	.....	.....	42.90	.....
Extra Drops	.....	.....	2.25	3.00	.....	.....

(All other Annunciators—Sell at List less 10%)

COUCH

Electrical Reset

Number of Drops	Style D Face Type Wood Face Number	Style D Face Type Wood Face Price	Style F Flush Wood Face Number	Style F Flush Wood Face Price	Style F Flush Metal Face Number	Style F Flush Metal Face Price
4	DA 4	$21.50	FA 4	$44.80	FA 4	$49.80
6	DA 6	26.50	FA 6	49.30	FA 6	55.00
8	DA 8	31.50	FA 8	53.80	FA 8	59.70
10	DA 10	36.50	FA 10	58.25	FA 10	64.70
12	DA 12	43.10	FA 12	64.25	FA 12	71.30
15	DA	.....	FA 15	73.10	FA 15	81.50
16	DA 16	56.50	.....	.....	.....	.....
20	DA 20	69.75	FA 20	88.15	FA 20	98.00

Add for each drop on any of above—$4.15 per drop

ADAPTORS & REDUCERS

For Sockets and Vases

	Price
Mogul to Medium	$0.50
Medium to Candelabra	.25
Candelabra to Miniature	.20
Medium to Intermediate	.25
Parallel Blades to Edison	.35
Plug in Pull Socket	1.00
Vase Adapters, Benjamin No. S, 831, 832, 833—Each	2.00
Two-Light Vase Adapter, Brush Brass or Gun Metal, Complete with Pull Sockets, Plug, 6 feet Silk Cord—Rodale No. V-41	4.00

EXTENSION ARMS FOR PULL SOCKETS

For Brass or Porcelain Sockets with 8"—10"—12" or 14" Reflec.	$0.65
" " " " " " 16"—18" or 20" "	.70

ADJUSTERS

For Cords

	Price
Universal Cord Adjuster Standard Size No. 1417 3½" Long	$.10
" " " Factory No. 1418 5½" Long	.15
" " " Reinforced No. 1419 5½" Long	.20
Ball Type No. 1403 & 5 for Type C Cord. ⅛ hole	.10
" " No. 4634 & 5 for Reinforced Cord. ⅜ hole	.12

ACORNS & TASSELS

Luminous Acorns and Pendants for Pull Chain	$0.30
Brass Acorns and Tassels for Pull Chain	.10
Brass Acorns Adjustable for Linen Cord	.10
Insulating Link for Pull Chain	.15

BOXES, SWITCH

SECTIONAL SWITCH BOXES

Single Gang—For Switch and Recep. for Old or New Work

	Depth		Price Black	Price Galvd.
For Loom	2, 2¼ or 2½"	Without clamps	$.18	$.20
" "	2½"	With "	.16	.19
For BX Cable	2¼ " 2½"	With "	.18	.20
" "	3"	With "	.32	.35
For Rigid Conduit	1½ to 2¼"	Without "	.19	.21
" "	3 & 3½"	Without "	.32	.35
Spacers—For Spacer only deduct from any of above prices			.04	.05
Kruse Sw. Box Supports—G. E. No. 6610—16½" Long				.20

With BRACKETS or EXTENDED EARS or LATH SUPPORTS

For New Work

	Depth		Price Black	Price Galvd.
For Loom	2, 2¼ or 2½"	Without clamps	$.22	$.25
" "	2, 2¼ " 2½"	With "	.25	.28
For BX Cable or Loom	2, 2¼ " 2½"	With "	.31	.34
" Rigid Conduit	2 to 2¼"	Without "	.26	.29

SOLID GANG BOXES—GALVANIZED

Covers Extra

	2 Gang	3 Gang	4 Gang	5 Gang	6 Gang	7 Gang	8 Gang
Price of Box	$ .85	$1.20	$1.60	$2.15	$4.15	$6.25	$6.65
Price of Cover	.40	.60	.80	1.00	1.95	3.45	3.85

TANDEM SWITCH BOXES

	Black 2 Gang	Black 3 Gang	Black 4 Gang	Galvanized 2 Gang	Galvanized 3 Gang	Galvanized 4 Gang
Loom, BX or Conduit						
Tandem Boxes 1¼ & 2" Deep	$.68	$1.10	$1.68	$.81	$1.23	$1.90
" " 2½ & 2¾" "	.81	1.23	1.90	.95	1.37	2.18

DOOR SWITCH BOXES

	Black	Galvd.
For Rigid or Flexible Conduit without Clamps	$.50	$.55
" " " " " with Clamps	.60	.65

LAUNDRY BOXES

	Black	Galvd.
Gem-Appleton or Raco, etc., with Single Receptacle	$1.10	$1.25
" " " " " Duplex "	1.25	1.35

For Concrete Boxes See Page PL-5.
For Solid Gang Boxes See Page PL-5.

BOXES & COVERS, OUTLET

CEILING BOXES, ROUND

Universal Nos.	Size and Description	Depth	Knockouts Bottom Side	Price Black	Price Galvd.
36115	3½" With Lugs	½"	3-½" & 4 Loom	$0.09	$0.11
36116	3½" No "	½"	3-½" & 4 "	.07	.09
36125	3½" With "	¾"	3-½" & 4 "	.13	.15
36126	3½" No "	¾"	3-½" & 4 "	.11	.13
36716	3½" Flat Plate with Clamps	½"	3-½" & 4 "	.08	.10
56111	4" With Ears	½"	5-½" or ¾" K.O.	.10	.12
56112	4" No "	½"	5-½" or ¾" K.O.	.06	.09
56115	4" With Ears-Loom & Cond.	½"	3-½" & 6 Loom	.11	.14
56116	4" No " " "	½"	3-½" & 6 "	.08	.10
56121	4" With Ears	¾"	5-½" or ¾" K.O.	.13	.15
56122	4" No Ears	¾"	5-½" or ¾" K.O.	.10	.12
56125	4" Ears-Loom & Conduit	¾"	3-½" & 6 Loom	.15	.18
56126	4" No Ears " "	¾"	3-½" & 6 "	.15	.16
56712	4" Flat Plate	½"	5-½" or ¾" K.O.	.06	.08

OUTLET BOXES, OCTAGON

Universal Nos.	Size and Description	Depth	Knockouts Bottom Side	Price Black	Price Galvd.
24151	3½" Oct.-Conduit Box	1½"	1-½" 4-½"	$0.10	$0.12
24151	3½" " – "	1½"	1-½" 4-½"	.12	.15
24151 FS	3½" " – " With Stud	1½"	1-½" 4-½"	.20	.22
54151	4" Oct.-Conduit Box	1½"	5-½" 4-½"	.14	.16
54151	4" " – " "	1½"	5-½" 4-½"	.15	.17
54151 FS	4" " – " With Stud	1½"	5-½" 4-½"	.15	.17
54155	4" " –Cond. & Loom B	1½"	9-½" 12-½"	.19	.23
54171	4" " –Conduit Box	2¼"	½-¾-1" ½-¾-1"	.24	.28

These prices apply only to the United States

COVERS
For 3¼"—3½"—4" Octagon or Round Boxes

			Black	Galvd.
24C-1	3½"	Blank Cover Flat	$0.04	$0.07
24C-2	3½"	" Raised	.05	.08
24C-6	3½"	Flat with ½" K. O. in Center	.05	.08
24C-7	3½"	Raised " ½" K. O. "	.06	.09
24C-12	3½"	" " ½" Metal Bushing	.06	.09
24C-28	3½"	Spider for Switch or Receptacle	.09	.10
24C-31	3½"	Raised " Federal Sign "	.07	.09
24C-33	3½"	Flat 1⅜" hole for other "	.18	.18
24C-35&36	3½"	Raised " 1½" " " "	.06	.08
24C-39	3½"	Flat for fluted devices	.17	.19
54C-1	4"	Blank Cover Flat	.05	.08
54C-2	4"	" Raised	.06	.09
54C-3	4"	Raised " Open ⅝" Deep	.09	.09
54C-6	4"	Flat with ½" K. O. in Center	.06	.09
54C-7	4"	Raised " ½" K. O. "	.08	.11
54C-12	4"	" " ½" Metal Bushing	.07	.09
54C-28	4"	Spider for Switch or Receptacle	.08	.10
54C-31	4"	Raised " Federal Sign "	.07	.10
54C-33	4"	Flat 1⅜" Hole for Std. "	.10	.12
54C-35-6	4"	Raised 1½" " " Ring"	.07	.10
54C-39	4"	Flat for Fluted Devices	.20	.22
54C-48	4"	Raised " ⅝" High Open	.07	.10

OUTLET BOXES—Square 4" & 4 11/16"

Universal No.	Size and Description	Depth	Knockouts Bottom	Knockouts Side	Price Black	Price Galvd.
51151	4" Sq. Comb. Gas & Elect.	1½"	5-½"	8-½"	$0.16	$0.19
51151	4" " " " "	1½"	5-¾"	8-¾"	.18	.21
52151	4" " Conduit Box	1½"	5-½"	10-½"	.15	.18
52151	4" " " "	1½"	5-¾"	10-¾"	.17	.21
52171	4" " " "	2½"	5-½"	10-½"		.54
72151	4 11/16" " "	1½"	½" or ¾"	½" or ¾"		.41
72171	4 11/16" " "	2½"	½-¾-1"	½-¾-1"		.48

COVERS For 4" & 4 11/16" Square Boxes

52C-1	4" Sq. Blank Flat	$0.07	$0.10
52C-2	4" " Raised	.10	.13
52C-3	4" " Raised ⅝" High Open	.13	.15
52C-6	4" " Flat with ½" K. O. in Center	.10	.12
52C-7	4" " Raised " ½" " " "	.14	.17
52C-12	4" " " " ½" Metal Bushing	.12	.14
52C-13	4" " " ½" for Rect. Switch or Recept	.10	.12
52C-14	4" " " ¾" " " " " "	.11	.13
52C-15	4" " " 1" " " " " "	.16	.18
52C-16	4" " " 1⅛" " " " " "	.17	.20
52C-17	4" " " ½" " 2 " " "	.14	.17
52C-18	4" " " ¾" " 2 " " "	.16	.19
52C-19	4" " " 1" " 2 " " "	.21	.23
52C-21	4" " " 1¼" " 2 " " "	.23	.25
52C-28	4" " Flat Spider for Snap Switches	.16	.18
52C-31	4" " Raised for Sign Rec	.09	.10
52C-35-36	4" " " " "	.14	.17
52C-39	4" " " Fluted Devices	.26	.29
52C-48	4" " " with 2¾" Opening	.11	.13
52C-57	4" " " For French Fixture	.32	.35
52C-62	4" " " " Single Sw. ¾" High	.10	.13
72C-1	4 11/16" Sq. Blank Flat		.27
72C-2	4 11/16" " " Raised		.30
72C-3	4 11/16" " Raised Open		.32
72C-7	4 11/16" " " With ½" K. O. in Center		.32
72C-12	4 11/16" " " " ½" Bushing "		.32
72C-14-15	4 11/16" " " ¾ & 1" for Switch or Rec		.34
72C-18	4 11/16" " " ¾" " 2 Devices		.47
72C-48	4 11/16" " " Open ⅝" High		.32
Special Covers For Red Seal Work	4" Cover for One Push or Toggle Switch or Single or Duplex Receptacle	.20	.25
	4" Cover Two Push or Toggle Switches or Two Receptacles or Any Combination of Two Devices	.34	.38

EXTENSION RINGS For Octagon & Square Boxes

25151	3¼" Octagon Ring—1½" Deep	$0.22	$0.24
53151	4" " or Square Ring 1½" Deep	.24	.26
73151	4 11/16" Square Ring 1½" Deep		.59
55171	4" Octagon Ring 2½" Deep	.40	.45
53171	4" Square " 2½" "		.68
73171	4 11/16" " " 2½" "		.63

HANDY OR UTILITY BOXES & COVERS
For Use With Rigid Conduit

Description	Universal Numbers	Price
Box 3¼x1½x1½ For Rigid Cond	58151	$0.22
Box 4x2¼x1½ For Rigid Cond	58361	.20
Box 4x2¼x1½ For Rigid Cond		.22
Box 4x2¼x2⅛ For Rigid Cond	58371	.22
Box 4x2¼x2½ For Rigid Cond		.60
Cover Flat Steel Closed	58C1	.08
Cover Porcelain with Holes		.13
Cover Raised for Flush Plug Recep		.30
Cover for Sgle. Receptacle	58C5	.16
Cover for Duplex Receptacle	58C7	.16
Cover for Toggle Flush Switch	58C30	.16
Cover for Sgle. Push Switch	58C3	.16
Cover for Sign Receptacle	58C33	.18
Cover for Snap Switches	58C28	.18
Cover with ½ K. O.	58C6	.16
Cover with ¼ or ⅜ Nipple		.27
Cover with Bushing for Cord	58C11	.16

CONCRETE BOXES WITH COVERS

	Depth 1⅛"	2"	2½"	3"	3½"	4"	5"	6"
Box & Back Plate with ⅜ Stud	$0.24	$0.29	$0.32	$0.33	$0.36	$0.41	$0.45	$0.54
Box & Back Plate less ⅜ Stud	.21	.24	.27	.31	.32	.36	.41	.50
Plate only 4½" Diam. without Fixture Stud 3½" and 2¾" K. O.								$0.09
Plate only 4½" Diam. with ⅜" Fixture Stud 3½" and 2¾" K. O.								.14
Plate only 4½" Diam. with ½" Fixture Stud 3½" and 2¾" K. O.								.18

SOLID GANG BOXES
Covers Extra

Galvd. Only	2 Gang	3 Gang	4 Gang	5 Gang	6 Gang	7 Gang	8 Gang
Box Price	$.85	$1.20	$1.60	$2.15	$4.15	$6.25	$6.65
Cover "	.40	.60	.80	1.00	1.95	3.45	3.85

BOXES, OUTLET

NEW CODE OUTLET BOXES
Box Only

Size	Stud	Clamps	Bush Plates	Price
3¼x3¼ Round	Yes	Two	No	$0.23
3¼x3¼ Round	No	Two	No	.23
3¼x1½ Round	Yes	Two	No	.27
3¼x1½ Octagon	No	Two	Two	.16
3¼x1½ Octagon	Yes	Two	Two	.20
3½x1½ Round	No	Two	No	.18
3½x3¼ Round	Yes	Two	Two	.15
3½x1½ Octagon	No	Two	Two	.23
3½x1½ Octagon	Yes	Two	Two	.27
4x1½ Octagon	No	Two	Two	.27
4x1½ Octagon	Yes	Two	Two	.24
G.E. Cable Boxes for Straight Electric or Combination No. 5200-01				.20
Hope Cable Boxes for Straight Electric or Combination No. 2 & 4 & 14				.20
Thomas & Betts No. 565-66-67-68 Standard Cable Boxes				.22
Thomas & Betts No. 553-554 Dead Ground Cable Boxes				.35
Thomas & Betts No. 160-161 Flush Wall Type Cable Boxes				.50

BAR HANGERS FOR OUTLET BOXES
Boxes Extra

(With ⅜ Fixture Stud) (With ½ Stud add 5c ea.)	Price
Straight Bar 18" Long	$0.22
Straight Bar 24" Long	.30
Shallow Offset Bar 19½" Long	.26
Shallow Offset Bar 24" Long	.35
Deep Offset Bar 19½" Long	.26
Deep Offset Bar 24" Long	.35
Straight Old Work Bar 12"	.15
Box Cleat Bar 21"	.12
Straight Saddle Bar	.20

SET-UP BOXES WITH BARS

Size	Ears	Clamps	Bush Plates	Galvd. Price
For Loom				
3½x3½ Round	No	None	None	$0.30
3½x3½ Round	No	Two	None	.35
3½x3½ Round	Yes	None	None	.35
3½x3½ Round	Yes	Two	None	.40
For New Code Boxes				
3¼x1½ Oct.	Yes	Two	None	.45
3½x1½ Oct.	Yes	Two	Two	.50
3½x3½ Round	No	Two	None	.45
3½x3½ Round	No	Two	Two	.45
4x1½ Oct.	Yes	Two	None	.50
4x1½ Oct.	Yes	Two	Two	.50
For Conduit				
4x1½ Round	No	None	None	.30
4x1½ Round	Yes	None	None	.35

BUSHINGS & LOCKNUTS

BUSHINGS & LOCKNUTS
For Rigid Conduit

	½"	¾"	1"	1¼"
Locknuts—Each	$.01	$.01½	$.02½	$.04
Bushings—Each	.01¾	.02	.05	.07
	1½"	2"	2½"	3"	3½"	4"
Locknuts—Each	$.06	$.10	$.16	$.26	$ .32	$ .46
Bushings—Each	.09	.15	.23	.35	.70	1.10

PORCELAIN CLAMP BUSHINGS
"Federal" or Equivalent

No.	K. O.	Inside Size	Outside Size	Wire Size	Bushing Each	Extra Ring Each
A-1	½"	⅝	41/64	No. 10	$.08	$.04
A-1½	½"	⅝	13/16	No. 10	.10	.04
A-2	½"	13/16	13/16	No. 8	.10	.04
A-3	½"	⅞	1	No. 3	.12	.05
A-4	1"	⅞	1 1/16	No. 00	.15	.07
A-5	1½"	1¼	1⅜	450 CM	.22	.10
A-6	2"	1¾	2¼	1 Mill. CM	.45	.12
B-1	¾"	⅝	41/64	No. 10	.20	.04
K-1	¾"	⅝	41/64	No. 10	.32	.04
K-2	¾"	13/16	13/16	No. 8	.37	.05

"MULTI" PORCELAIN CLAMP BUSHINGS

No.	Inside Size	Outside Size	For Wires	Price Each Complete
10	⅝	41/64	14 B & S	$0.08
12	⅝	41/64	14 B & S	.12
15	⅝	13/16	14 B & S	.10
20	⅞	13/16	6 B & S	.10
30	⅞	1	2 B & S	.12
40	¾"	1 1/16	000	.20
50	1 ⅛	1 1/16	350,000	.30
55	1 ⅛	1 7/32	600,000	.38
60	1 ⅛	2 1/16	1,000,000	.45

PORCELAIN NO CLAMP BUSHINGS
Multi- With Spring Clip, Not Threaded

Catalog No., Multi	90A	90B	91	92A	92B
Size of Wire Hole	⅝	13/16	13/16	11/16	15/16
To Fit K. O.	⅝	⅞	⅞	13/16	15/16
Price	$.06	$.06	$.06	$.07	$.07

These prices apply only to the United States

THREADED COMPOSITION BUSHINGS

Size	¾″	1″	1¼″	1½″	2″	2½″
Without Locknut	$.05	$.11	$.12	$.14	$.16	$.30	$.45	$ .80
With Locknut	.08	.14	.15	.18	.25	.45	.70	1.10

Socket Bushings

	¼″	⅜″	½″
Black Composition	$.02	$.02	$.04	$.08
For Sockets				

BOXES, FLOOR

NON-ADJUSTABLE TYPE

Latrobe Fullman Mfg. Co.	R.& S. Russell & Stoll	Steel City Steel City Co.	Description	Price
100	....	...	Comp. Out. Less Std. Recep. with Stem Nozzle	$3.70
101	2590	490	" " " " " " " "	2.70
110	2580	477	" " with " " & Bell "	4.10
112	2581	493	" " " 3 Wire " " " "	5.60
113	....	491	" " " 20A Polarz " Plug	5.80
300	....	499	Midget Out. with 10A Recep. no Nozzle	2.50

ADJUSTABLE TYPE

140	2502	400	Complete—Standard Box—Less Receptacle	$5.35
150	2503	401	" Deep " " "	5.35
120	....	...	" Standard " " "	5.35
130	....	...	" " " with "	5.70

ADJUSTABLE GANG TYPE

251	2511	441	Sgl. Gang Less Recep. with ½″ Cov. Plate	$ 6.75
252	2512	442	Two " " " " ½″ " " "	13.20
253	2513	443	Three " " " " ½″ " " "	19.45
254	2514	444	Four " " " " ½″ " " "	25.90
255	2515	445	Five " " " " ½″ " " "	32.00
256	2516	446	Six " " " " ½″ " " "	38.40

NOZZLES
For All Types of Floor Boxes

283	2686	469	For Duplex Tel. with ½″ Brass Pipe	$4.35
284	2696	468	" " Recept. " ½″ " "	5.70
285	2644	468B	" Dble. Duplex Recept. with ½″ Brass Pipe	9.10
274	2617	...	3″ High with Wire Slot & Screw Cap	2.30
295	....	...	For Duplex Recept. with ½″ Brass Pipe	8.25
206	2557	467	Standard Stem Nozzle	1.15
207	2558	466	" Bell "	1.15
270	....	...	Stem Nozzle for Armored Cable	1.15
271	2617	...	Bell " " "	1.65
272	1945	...	Stem " with Wire Slot & Screw Cap	1.90
280	....	...	Single Recept. Nozzle	4.10

G. E. & T & B BOXES

G. E.	T. & B.	Description	Price
8000	8000	Utility Outlet Box Non-Adjustable	$1.00
8200	1700	Two Wire Flr. " " "	4.00
8220-40	1701-2	Three " " " "	5.50
8300	1703	Extension " " Telo. or Signal	2.75
8400	1730-60	Two Wire " " Adj.—Deep or Shallow	6.25
8420-40	1731-61-2	Three " " " "	7.25
8500	1733-63	Telo. or Signal Floor Box Adj.-Deep or Shallow	5.00

"BUSHED ELBOWS"—"BULB TEES"—FLOOR COUPLINGS

	½″	¾″	1″	1¼″
Bushed Elbows Iron	$0.60	$0.80	$1.15	$3.45
"Bulb" Tees "	.....	1.75	2.60	6.95
Floor Coupling Brass	1.40	1.65	2.00	4.35

BOXES, CUTOUT

TYPE "A" STEEL SURFACE CUTOUT BOXES
Black

Width Short Side	Length. Long Side	3″ Deep	4″ Deep	6″ Deep	Width Short Side	Length Long Side	3″ Deep	4″ Deep	6″ Deep
4½	5	$ .60	.....	.....	12	30	.....	$10.75	$12.40
4½	9	.65	.....	.....	15	15	.....	2.75	4.15
4½	9 3½″	.65	.....	.....	15	18	.....	3.00	4.75
6	6	.65	$ .90	$1.20	15	24	.....	5.70	6.50
6	8	1.00	1.00	1.40	15	30	.....	13.35	15.30
6	9	.85	1.50	1.80	18	18	.....	4.75	5.40
6	12	1.35	1.25	1.95	18	21	.....	10.65	12.50
8	8	1.35	1.10	1.70	18	24	.....	12.20	13.00
8	10	1.45	1.25	2.00	18	30	.....	15.20	15.40
8	12	1.80	1.50	2.25	18	36	.....	17.80	19.40
9	9	1.10	1.80	2.30	18	40	.....	19.50	21.30
9	12	1.40	2.15	2.60	24	24	.....	15.30	17.40
10	10	1.70	1.50	2.35	24	30	.....	19.10	20.80
10	12	1.95	1.60	2.65	24	36	.....	22.35	23.75
10	15	2.35	1.85	3.10	24	40	.....	24.30	26.60
10	18	2.70	3.00	3.60	24	44	.....	41.35	45.30
12	12	2.25	1.80	3.00	30	30	.....	27.20	29.65
12	15	2.40	2.30	3.50	30	36	.....	41.55	47.40
12	18	.....	2.50	4.00	30	42	.....	48.85	53.00
12	24	.....	4.40	5.40	30	48	.....	56.70	61.30

For Galvanized Boxes Add 25% to above prices.

BELLS & BUZZERS

Ansonia

Name	No.	Description	Buzzer	2½″ Bell	3″ Bell	4″ Bell	Cow or Sleigh
Ansonia	656	Sgle. Coil Non Adjust.	$ .40	$ .45	.....	.....	.....
Ansonia	657	Dble. Coil Non Adjust.	.50	.55	$ .60	.....	.....
Wizard	659	Dble. Coil Non Adjust.	.90	.95	1.05	$1.35	$1.65
Eureka	641	Dble. Coil Adjust. Class B	.95	1.00	1.25	1.60	1.80
Acme	631	Dble. Coil Adjust. Class A	1.35	1.40	1.50	1.80	2.10
Eureka	621	Dble. Wood Box Bell	1.20	1.35	1.40	1.65	1.85
Monitor	661	Round Type Monitor	.....	.....	1.50	.....	.....
Wizard	666	Watch Case Buzzer Round	1.25	.....	.....	.....	.....
Ansonia	663	Comb. Bell & Buzzer	1.00	1.00	1.10	.....	.....
Ansonia	664	Comb. Bell & Buzzer	.....	1.15	.....	.....	.....

BELLS AND BUZZERS—*Continued*
Skeleton and Weatherproof Bells

	Size	2½″	3″	4″	5″	6″	7″	8″	10″	12″
620	D.C.Skeleton	$4.55	$5.00	$5.75	$7.60	$8.75	$12.35	$13.20	$20.60	.....
622	D.C.Weatherprf	.....	.....	.....	13.00	14.65	.....	18.15	30.30	$40.85
624	Wthpf.Trans.Bell	.....	.....	.....	16.30	17.95	.....	21.85	37.10	42.30

Edwards

Name	No.	Size	Description	Price
Nubel	735	2¼″	Two Coil Non-Adjust.-Gray Enam. Bell	$ .65
"	736	.....	" " " " " Buzzer	.60
Dixie	720	2½″	" " Class C-Non-Adjust. Bell	.95
"	725	.....	" " " " " Buzzer	.90
Combell	737	2¼″	Two Coil Non-Adjust.-Gray Enam. Bell & Buzz.	1.15
Tubell	738	....	Dble. Coil Non-Adjust.-Gray Enam. Two Bells	1.20
Cadet	710	2½″	Two Coil-Class B-Adjust. Bell	1.00
"	715	.....	" " " " Buzzer	.95
"	712	3″	" " " " " Bell	1.25
"	714	4″	" " " " " Bell	1.60
"	1	.....	" " " " " Cow or Sleigh	1.80
Buz-A-Bell	730	2½″	Two-Coil-Class C Comb. Bell & Buzzer	1.20
Monitor	156	3″	Monitor Bell-Nickel Plated Gong	1.50
Bronx	750	1¾″	Nickel Watch Case Buzzer	1.25
Buzzer	16	....	Flush Buzzer fits Standard Switch Box	2.40

Skeleton D. C. & Transformer Inside Bells & Buzzers

	3″	4″	6″	8″	10″	12″	Buzzer
17 "Economy"Skelet. Bells	$5.50	$6.75	$8.75	$14.25	$21.25	$27.50	....
510 A. C. Transformer "	9.40	10.15	18.90	23.45	41.90	48.00	$7.00

Edwards—Lungen
No. 13 Bells

Size	Price
1″	$2.00
1¾″	1.80
2½″	1.90
3″	2.00
4″	2.20
6″	9.50
Cow or Sleigh	2.25

No. 15 Buzzers

	Price
No. 0	$1.85
No. 1	1.50
No. 2	1.70
No. 3	2.00
No. 4	2.20

Partrick & Wilkins
Iron Box Bells

Small 2½″ Iron Box Bell Non-Adjust. Dble. Magnet	$ .40
Small 3″ Iron Box Bell Non-Adjustable Double Magnet	.85
Fancy Gong Cow or Sleigh Non-Adjust. Dble. Magnet	1.65
King Monitor Bell	1.60
6″ Large Iron Box Bell for Battery Current	6.50
8″ " " " " " " "	8.00

Buzzers

No. 1 Small Iron Box Buzzer Non-Adjust. Dble. Magnet	$ .40
Watch Case Buzzer Nickeled	1.10
Midget Buzzer Nickeled	1.90
Wood Box Buzzer	2.15
Flush Buzzer with Flush Plate	3.00

Wood Box Bells

Regular Type		Large Type	
2½″ Regular	$ 2.20	6″ Regular	$ 6.50
3″ "	2.25	8″ "	8.00
4″ "	2.65	10″ "	13.25
Standard Cow or Dinner	3.05	5″ Dinner	11.40
3″ Dinner	6.20	6″ "	13.30
4″ "	8.75	5″ Cow	14.00
3″ Cow	6.60	6″ "	16.00
4″ "	10.00		

Stanley & Patterson

Name	No.	Description	Buzzer	2½″ Bell	3″ Bell
Competition	400-1	Dble. Coil Non-Adjust.	$ .60	$ .65	.....
Eclipse	200-3	" " " "	.90	.95	$1.00
XXX	211-18	" " Adjust. B	.95	1.00	1.25
Marlo	221-29	" " " A	1.65	1.70	1.85
Eclipse	208	Comb. Bell & Buzzer	.95	.95	.....
Commercial	402	" " " "	1.10	1.10	.....
Midget	331-34	All Nickeled Bell	1.50	1.80	.....
P. R.	240	Watch Case Buzzer	1.25	.....	.....
P. R.	238	Monitor	.....	.....	1.50

Name	No.	Description	4″ Bell	Cow or Sleigh
Competition	400-1	Dble. Coil Non-Adjust.	.....	.....
Eclipse	200-3	" " " "	$1.30	.....
XXX	211-18	" " Adjustable B	1.60	$1.80
Marlo	221-29	" " " A	2.25	2.65
Eclipse	208	Comb. Bell & Buzzer	.....	.....
Commercial	402	" " " "	.....	.....
Midget	331-34	All Nickeled Bell	.....	.....
P. R.	240	Watch Case Buzzer	.....	.....
P. R.	238	Monitor	.....	.....

Schwarze and Liberty

	Buzzer	2½″	3″	4″	Tea
Single Coil Bell or Buzzer No. 31 & 32	$ .55	$.65	$ .70	$1.50	$1.35
Two Coil Bell or Buzzer No. 311-321	.50	.50	.55	.80	.....
Combination Bell & Buzzer No. 331-333	.90	.90	.....	.....	.....
Flush Type Buzzer No. 31S	1.25	....	.....	.....	.....

SKELETON BELLS
Any Make

	2½″	3″	4″	5″	6″	8″	10″	12″
Faraday	$5.70	$6.00	$7.00	$9.40	$10.60	$16.00	$25.00	$31.00
Faraday Elka	5.25	5.50	6.60	7.75	8.75	14.25	21.25	27.50

These prices apply only to the United States

PUSH BUTTONS, TREADS. SPRINGS

STANDARD PUSHES AND TREADS

Description	Price
Round 1⅛" and 1¾" Stamped Brass	$0.20
Round 2⅛" Stamped Brass	.25
Round 2¼" with Card Holder Stamped Brass	.40
Rectangular 4x2" Stamped Brass	.40
Rectangular 3¼x1⅜" Stamped Brass	.40
Oval 2 ⅛"1⅜" Stamped Brass	.30
Oval 4½x2" Stamped Brass	.45
Pear Push Buttons—Wood or Composition	.60
Pear Push Buttons—Metal, Nickel or Brass	.85
Desk Buttons—¾" Hole—Nickel	.75
Desk Buttons—½" Hole—Nickel	.65
Desk Buttons—⅜" Hole—Nickel	.45
High Voltage ¾" Hole—110 Volts	2.40
Table Clamp with Push Button	1.00
Floor Pushes Combination Nickel	.85
Floor Treads—"Daisy" "Dixie"	1.50
Wood Push Buttons	.20

BAKELITE OR COMPOSITION PUSHES

Round Plain 1¾" Diam.	$0.30	Rectangular Plain 1⅝x3¼"	$0.40
Octagon Fancy 1¾x1¾" Diam.	.35	Rectangular Fancy 1¾x3¼"	.60
Oct. Card Holder 2½x2¼" Diam.	.40	Rec. Double Card Holder	.85

DESK PUSHES—COMPOUND

With Buttons

Make and Description	1 Button	2 Button	3 Button	4 Button	5 Button	6 Button
Edw. #146—Bakelite Block	$2.10	$2.50	$3.20	$3.65	$4.50	$5.25
Edw. #197 Less Cord Bake. Bl.	3.50	4.75	6.00	7.25	8.50	9.75
Edw. #197 with 6' Cord Bake. Bl	4.05	6.10	7.75	9.45	11.15	12.85
Edw. #190 Wood—Less Cord	4.00	5.35	6.60	8.10	9.40	10.80
Edw. #190 Wood with Cord	4.45	6.65	8.35	10.30	12.05	13.90
Fara. #4C Wood Less Cord	2.00	2.30	2.60	3.05	3.50	3.90
Fara. #2A Wood Less Cord	4.90	7.00	8.50	10.60	12.40	13.80
Fara. B.D.P. Bake. Less Cord	3.50	4.75	6.00	7.25	8.50	9.75
Fara. M.D.P. All Metal Less Cord	6.00	11.00	16.00	21.00	.....	.....
P&W #4 Wood Less Cord	2.60	2.80	3.50	4.30	4.85	5.60
P&W #5 Wood Angle Less Cord	.....	.....	.....	13.00	.....	13.95
P&W #12 Wood Less Cord	.....	3.30	4.25	5.45	.....	6.00

DOOR AND WINDOW SPRINGS

Door Springs		Window Springs	
Open Circuit Door Spring	$0.40	Open Circuit Single	$0.60
Closed Circuit Door Spring	.50	Open Circuit Double	.85
Open Circuit Make and Break	.50	Close Circuit Single	1.00
Open Circuit Door Trip	1.00	Open Circuit Transom	1.60

OTHER PUSH BUTTONS

Ansonia

Round Stamped			Price	Round Cast			Price
514	1⅛"	Loose Back	$0.30	511	1⅛"	Loose Back	$0.90
515	2¼"	Loose Back	.40	512	2¼"	Loose Back	1.00
579	1⅛"	Flush Push	1.00	508-10	2¼"	Loose Back	1.00
E33	1¾"	Flush Push	1.00	540	2¼"	Loose Back	.60
				550	2¼"	Loose Back	.85
				570	2¼"	Loose Back	.75
F-33		Stamped Flush Push	$0.70	545		Oblong 2 Gang for Cards	$1.85
G-33		Stamped Diamond Push	.70	545		Oblong 3 Gang for Cards	2.65
521		Stamped Push	.75	545		Oblong 4 Gang for Cards	3.65
528-534		Stamped Push	.95	546		Oblong 1 Gang	1.65
536-537		Stamped Push Loose Back	1.00	547		Oblong 2 Gang	1.50
538		Stamped Oblong Push	1.25	548		Oblong 1 Gang	.75
541		Oblong for Card	1.65	549		Oblong 1 Gang	1.20
544		Oblong for Card	1.20	577		Diamond Push	.70
Combination Floor Pushes Complete 573				578		Diamond Push	.75
700 1 Point Wood Base Switch							2.50
							.45

Edwards

Round Desk Buttons		Oblong Push Buttons	
621—⅜" Hole	$1.40	602—2 Gang for Cards	$1.00
622—½" Hole	1.45	607—Single for Cards	.40
625—⅝" Hole	.50	608—Single	.45
1786—2⅛" Watertight	3.00	650—Single Solid Cast Brass	1.10

Partrick & Wilkins

Round Push Buttons

Stained Wood Push #2	$0.15
Oak Wood Regular #1	.35
Oak Open, Closed and Dbl. Cont. #1	.65
Oak Triple Contact #1	.90
Cast Brass 1½" Diam. #8	.55
Cast Brass 2⅛" Diam. #9	.65

Oblong Pushes

16 Cast Brass 4⅛x1⅛" Screw Cap	$1.55
31 Cast Brass 5x2⅝" Screw Cap	2.15
44 Cast Brass 4x2" Screw Cap	1.40
708 Wrought Push and Speak 1 Pce	1.00
907 2 Button and Card Holder	2.15
908 3 Button and Card Holder	2.95
909 4 Button and Card Holder	4.55

Desk Push Buttons

Car Push ⅜" Hole Black Center	$0.45
Multiple ¾" Hole Black Center	1.35
Pony ⅜" Hole Black Center	1.85

Pear Shape Pushes

Compound Maple 2 Button	$2.00
Compound Maple 3 Button	3.00
Wood Rosettes for above	.40

MULTIPLE PUSH BUTTONS

Couch "Pushrites"

With Card Holders

Number of Buttons	Wood Base Type: Plain Base Number	Plain Base Price	Weighted Base Number	Weighted Base Price	Flush Brass Plate Type: Number	Flush Brass Plate Type: Price
4	7900	$ 3.35	7980	$ 3.75	7940	$ 5.00
6	740	4.60	789	5.20	.....	.....
8	7910	5.80	7990	6.65	7950	9.15
12	7921	8.30	79010	9.60	7960	13.30
16	7930	10.80	79020	12.45	7970	17.50
20	793	13.30	7902	15.40	797	21.60

COUCH UNMOUNTED PUSH BUTTONS "WORKRITES"

No. 97 for ½" Hole	$0.50
Adaptor No. 0684 for same	.05

BRACKETS, RACKS AND WIREHOLDERS

Findlay—G. E.—Hubbard—Joslyn and National

HOUSE BRACKETS

For Pin Type Insulators, Less Insulators

Description	No. of Wires	Spacing	Price	Description	No. of Wires	Spacing	Price
Light Type	One	...	$0.25	Corner Type	One	...	$0.30
	Two	9"	.55		Two	9"	.55
	Three	6½"	.90		Three	6½"	.80
Heavy Type	One	...	.40				
	Two	9"	.80				
	Three	6½"	1.10				

HOUSE RACKS

With Insulators Attached

Light Type	One	...	$0.40	Heavy Type	Two	4"	$1.10
	Four	4½"	.95		"	8"	1.65
	Two	6"	.80		Three	4"	1.75
	Three	3"	.95		"	8"	2.10
	"	6"	1.20		Four	4"	2.20
					Five	4"	2.70

WIREHOLDERS

Separable Base With Insulator

Light Type	Two	6"	$0.55	Light Type	Three	4½"	$0.80
	"	9"	.60		"	6"	.85

WIREHOLDERS

With Insulators Attached

Light Type	One	...	$0.30	Heavy Type	One	...	$0.65
	Two	6"	.55		Two	6"	1.25
	"	9"	.55		"	9"	1.30
	Three	4½"	.80		Three	6"	1.85
	"	6"	.85		"	6"	1.05

SECONDARY RACKS

With Insulators Attached

Light Type	Two	6"	$0.90	Heavy Type	Two	8"	$1.30
	Three	6"	1.30		Three	8"	2.15
	Two	6"	.85		Two	8"	1.20
	Three	6"	1.20		Three	4"	1.35
	Two	8"	.90		"	8"	2.00
	Three	8"	1.30				

WIRE HOLDERS

All Porcelain Screw Type Single Point

Description					Price
2⅜x2⅞—20x2"	Wood Screw				$0.20
1⅛"x2⅞—20x2"	"	"			.14
2¾x3⅝—22x2¼"	"	"			.25
2½x3¾—22x2"	"	"			.20
Swinging Round Knob	22x2"	Wood Screw			.35
" Oblong "	22x2"	"	"		.35
" Round "	⅜x3"	Lag Screw			.35
Rigid Oblong Knob	22x2"	Wood Screw			.25
" Large "	24x2½"	"	"		.60

SPOOL INSULATORS

All Porcelain For Secondary Racks

3" x3⅛"	One Groove	$0.20
3" x3⅛"	Two "	.25
3" x3¾"	One "	.30
2⅛"x2¼"	" "	.10
2⅛"x2¼"	" "	.15
3" x3⅛"	" "	.18
Oblong Insulator	Light Type	.15
" "	Heavy Type	.18

These prices apply only to the United States

The Following Advertisements

appeared in the November, 1930, to February, 1931, issues of this magazine:

Motor Specialists - ATTENTION!

Wagner acknowledges that the Motor Specialist fills an important gap between motor manufacturer and motor buyer—that there are hundreds of thousands of establishments which do not and cannot maintain special electrical departments to specify, buy, install and service electric motors—that these are the Motor Specialist's logical clientele—for Wagner cannot and does not desire to contact such a large number of firms. » » » Wagner recognizes the Motor Specialist's right to sell such establishments without competition from the motor manufacturer. Wagner desires to cooperate with and help Motor Specialists to build a profitable business—and, therefore, maintains a definite resale and service policy toward that end. » » » That the Wagner policy is right is reflected by the fact that so many Motor Specialists have chosen Wagner as their supplier of motors. » » »« « «

MESSAGE No. 1

Motor specialists— about face!

Yes, "about face"—that's the only way to express it. » » » Heretofore most dealers attempted to supply any make of motor which a prospective customer might happen to have mentioned in his inquiry. This is true even now. » » » But more and more Motor Specialists are realizing that it is better to make an "about face" and concentrate on one line of motors and build business along that line. » » » Consider your local Ford, Buick and Chrysler agencies and try to picture them satisfying any one's whims for any make of automobile. » » » When you enter an automobile agent's store, the agent sells you his make of car, and not any make you mention. » » » When a customer is in the market for an electric motor, isn't it wiser to do as the automobile agent does: talk one make only, the product of a manufacturer who will not only refrain from competing against you, but will even help you to land the order? » » » Certainly it is! And that is why so many Motor Specialists are choosing Wagner as their exclusive supplier of motors.

MESSAGE No. 2

Motor specialists— Forward March!

"Forward march" is the next logical order. Why hesitate? » » » There is a Wagner branch manager, salesman, or service manager near you. It is his job to co-operate with you; orders from Wagner headquarters leave no doubts in his mind. Each Wagner salesman is a motor specialist, supplied with engineering data, qualified to help you select the motor for the job and to land the order, too. » » » Two can do more than one. Let a Wagner salesman be your "partner" the next time a motor job is up. Just get in touch with the nearest Wagner branch office listed below.

Atlanta, Ga.	Houston, Texas	Philadelphia, Pa.
Baltimore, Md.	Indianapolis, Ind.	Pittsburgh, Pa.
Boston, Mass.	Kansas City, Mo.	Portland, Ore.
Buffalo, N. Y.	Los Angeles, Calif.	Salt Lake, Utah
Chicago, Ill.	Memphis, Tenn.	San Francisco, Cal.
Cincinnati, Ohio	Milwaukee, Wis.	Seattle, Wash.
Cleveland, Ohio	Minneapolis, Minn.	St. Louis, Mo.
Dallas, Texas	Montreal, Canada	Springfield, Mass.
Denver, Colo.	New York, N. Y.	Toledo, Ohio
Detroit, Mich.	Omaha, Nebr.	Toronto, Canada

MESSAGE No. 3

Motor specialists--- pass in review

It's time to pass in review. For the past three months we have been laying our policy before you. Many are the comments and questions we have received in response—praise, doubt, skepticism. » » » Many motor specialists still hesitate to take us seriously; our policy toward them apparently seems to be too good to be true. » » » Others question some of the details of our policy, and for their benefit we herewith pass everything in review. Just read the center part of this advertisement; that's the story, with no "ifs" and "buts" about it. » » » For more details, write any one of the branch offices listed below—where, incidentally, motor specialist contract blanks await your signature.

There are hundreds of thousands of establishments which do not and cannot maintain special electrical departments to specify, buy, install and service electric motors. These are the motor specialist's logical clientele, for Wagner cannot economically and does not desire to contact such a large number of firms. Wagner recognizes the motor specialist's right to sell such establishments without competition from the motor manufacturer. » » »

Atlanta, Ga.	Houston, Texas	Philadelphia, Pa.
Baltimore, Md.	Indianapolis, Ind.	Pittsburgh, Pa.
Boston, Mass.	Kansas City, Mo.	Portland, Ore.
Buffalo, N. Y.	Los Angeles, Calif.	Salt Lake, Utah
Chicago, Ill.	Memphis, Tenn.	San Francisco, Cal.
Cincinnati, Ohio	Milwaukee, Wis.	Seattle, Wash.
Cleveland, Ohio	Minneapolis, Minn.	St. Louis, Mo.
Dallas, Texas	Montreal, Canada	Springfield, Mass.
Denver, Colo.	New York, N. Y.	Toledo, Ohio
Detroit, Mich.	Omaha, Nebr.	Toronto, Canada

Wagner Electric Corporation
6400 Plymouth Ave., St. Louis, U. S. A.
Motors Transformers Fans
Lockheed Hydraulic Brakes

MESSAGE No. 4

During those four months and ever since then, we received many expressions of appreciation of our complete cooperation and not a single complaint for failure.

"Nuf Sed!"

Wagner Electric

6400 Plymouth Avenue, Saint Louis, U.S.A.

L131-6XA

A new

PULL SOCKET

that IS different

BECAUSE of the success of G-E key sockets with Textolite interiors, General Electric has now developed a new pull chain socket interior using this type of construction.

The mechanism is totally inclosed in Textolite to seal it against dirt or injury. In addition to the insulation of the usual socket lining, extra insulation is obtained by inclosing the parts in Textolite. And the ruggedness of Textolite assures maximum durability.

These features and many others give this new G-E socket interior smooth action, ease of wiring, long life, and, in short, *extra* value. Ask your G-E Merchandise Distributor for the new G-E Pull Chain Sockets as well as G-E Key Sockets.

GENERAL ELECTRIC

WIRING DEVICES

MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT

Faith Is An Asset

Faith has a market value. Every contractor knows it—knows that only when he has implicit faith in his work, his men, and the materials he uses, can he be sure of increasing success.

There is faith built into every FA Panelboard—evident in the design, the quality of materials, the construction. That is why they give uninterrupted service for the lifetime of the building in which they are installed.

More and more contractors are winning jobs on reputation rather than price. They have learned what faith can do to help them sell.

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

Albuquerque, N. M.
General Engineering and Equipment Co., 108 N. Third St. P. O. Box 76

Atlanta, Ga.
L. A. Crow, 64 Cone St., N. W.

Baltimore, Md.
Wolfe-Mann Mfg. Co., 312 S. Hanover St.

Boston, Mass.
J. J. Cassidy, 231 Congress St.

Buffalo, N. Y.
Ralph E. Jones, 137 Saranac Ave.

Chicago, Ill.
Major Equipment Co., Inc. 4603 Fullerton Ave.

Cincinnati, Ohio
E. F. Schurig, 105 E. Pearl St.

Cleveland, Ohio
Frank Reske, 684 The Arcade

Dallas, Texas
R. S. Wakefield, 1814 Allen Bldg.

Denver, Colo.
Fred E. Staible, Inc. 2356 Blake Street

Detroit, Mich.
H. H. Norton, 2663 Wabash Ave.

Kansas City, Mo.
Robert Baker, 19 E. 14th St.

Los Angeles, Calif.
E. Zimmeyer, 1127 S. Wall St.

Memphis, Tenn.
C. B. Rutledge, 203 Monroe Ave.

Minneapolis, Minn.
Leo. H. Cooper, 422 Builders' Ex. Bldg.

New Orleans, La.
W. J. Keller, 203 Natchez Bldg. Magasine & Natchez Sts.

New York
Fred G. Kraut, 419 W. 54th St., New York City

Omaha, Nebr.
B. J. Fleming, 213 S. 12th St.

Philadelphia, Pa.
W. A. MacAvoy, Jr. 244 North 10th St.

Pittsburgh, Pa.
W. A. MacAvoy, Jr., Dist. Mgr. R. E. Thomas, Res. Mgr. P. O. Box 1349

St. Louis, Mo.
O. H. Rottman, 3650 Windsor Place

San Francisco, Calif.
Lee Van Atta, 340 Fremont St.

Seattle, Wash.
R. E. Dryer, 91 Connecticut St.

Tulsa, Okla.
P. E. Ebersole, 214 S. Victor St.

Toronto, Can.
Amalgamated Elec. Co., Ltd. Gen. Sales Office, 372 Pape Ave.

Vancouver, Can.
Amalgamated Elec. Co., Ltd. Granville Island

Winnipeg, Man., Can.
Amalgamated Elec. Co., Ltd. 677 Notre Dame Ave.

Calgary, Alberta
Amalgamated Elec. Corp. 1301-11th Ave., East

Hamilton, Ont.
Amalgamated Elec. Co., Ltd. 18 Mary St.

Montreal, Can.
Amalgamated Elec. Co., Ltd. 1006 Mountain St.

UNIVERSAL RACK UNITS

Rack Foot	$0.20
4" Extension	.25
8" "	.35
12" "	.45

INSULATOR SUPPORTS
Universal

Size	Price	Size	Price
1"	$0.24	2½"	$0.85
1½"	.40	1½"	.50
2"	.60	2"	.65

WOOD BRACKETS & PINS
Standard

Wood Brackets

1½x2 x10	$0.07	1½x2 x12	$0.08
1½x2 x12	.08	2 x2¼x12	.10
1½x2¼x12	.09	2 x2½x12	.10
		2 x3 x12	.15

Pins

Locust 1¼x8	$0.06	Locust 1½x9	$0.10
Oak 1¼x8	.05	Oak 1½x9	.08

B-SUNDRIES, BOLTS, ETC.

CARRIAGE BOLTS
Galvanized

	Length 3"	3½"	4"	4½"	5"	5½"	6"
⅜" Diam. Each	$.03	$.04	$.04	$.05	$.05	$.06	$.07
½" " "	.06	.07	.07	.08	.08	.09	.10

MACHINE BOLTS WITHOUT WASHERS
Galvanized

Diam.	Length 3"	4"	5"	6"	7"	8"	10"	12"	14"	16"	18"
⅜" Each	$.04	$.05	$.05	$.06	....	....	....	....	....	....	....
½" "	....	....	.08	09	$.10	$.11	$.12	$.14	$.16	$.18	$.20
⅝" "	....	....	....	....	.13	....	.15	.17	.19	.21	.23	.25
¾" "	....	....	....	....	....	....	.22	.24	.26	.29	.32	.35

FLAT CROSS ARM BRACES
Galvanized

	Length 20"	22"	24"	26"	28"	30"	32"
1⅛x1⅛	$.20	$.20	$.25	$.25	$.30	$.30	$.35
1¾x1¾	.20	.25	.25	.30	.30	.35	.35

STOVE BOLTS
Round or Flat Head

	Diameter ⅜"	½"	⅝"	¾"	⅞"	1"
Up to 1" Long Per Dozen	$.10	$.10	$.12	$.15	$.20
1¼ to 1½" " " "	.10	.10	.12	.20	.30
1¾ to 2½" " " "	.10	.12	.18	.25	.35
2¾ to 3" " " "	....	.20	.25	.30	.40
3½ to 4" " " "	....	.25	.30	.35	.45

TOGGLE BOLTS, STEEL
"Paine"

Size—Diameter	2" Long	3" Long	3½" Long	4" Long	5" Long	6" Long
⅛" Long Price Each	$.10	$.10	....	$.10	....	....
¾" " " "	....	.10	$.10	.10	....	....
⅛" " " "	.10	.10	.10	.10	$.11	$.12
⅛" " " "	.11	.11	.12	.12	.13	.13
½" " " "	....	.13	....	.14	.14	.15

NOTE: For Brass Toggle Bolts—2½ times above prices.

REDUCING WASHERS
For Outlet Boxes & Steel Cabinets

	¾"	1"	1¼"	1½"	2"	2½"
Reducing Washers	$.02	$.02	$.03	$.04	$.05	$.06
Thomas & Betts	.02	.04	.07	.08	.10	.35
R. H. Green						

K. O. SEALS
For Outlet Boxes & Steel Cabinets

For Closing ⅜" K. O.	$ .04
For Closing ½" K. O.	.06
For Closing ¾" K. O.	.08
Ceiling Button—P & S Porcelain No. 170—Each	.12

Switch Bases—See Snap Switches Page PL-19.

CORDS, FIXTURE, LAMP AND HEATER

FIXTURE CORD—ONE WIRE

	Type	Price Per Foot No. 18	No. 16	No. 14	No. 12
Cotton Covered—Light	F-64	$.01	$.02	$.02½	....
Cotton Covered—Heavy	F-32	.01½	.02	.03	$.04
Artificial Silk—Light	F-64	.01½	.02½	.03	....
Artificial Silk—Heavy	F-32	.01½	.03	.04	....

LAMP CORD—TWO WIRE
Regular Lamp Cord

	Type	Price Per Foot No. 18	No. 16	No. 14	No. 12
Cotton Covered Twisted Pair	C	$.02	$.02½	$.04	$.06
" " Parallel Pair	PO	.02½	.04	.05	....
x " " Twisted Pair	PD	.03	.05	....	....
Artificial Silk Twisted Pair	C	.02½	.04	.06	....
" " Parallel Pair	PO	.02½	.05	.07	....

x P. D. Cord is not listed in N. E. C. Code Approved Cords.

LAMP CORD, REINFORCED—TWO WIRE

	Type	Price Per Foot No. 18	No. 16	No. 14	No. 12
Cotton Covered Light Type ⅛	PS	$.03	$.04	$.07	....
" " Heavy ⅛	P	.04	.05	.07	$.12
Weatherproof ⅛	PSWP	.03½	.04	....	....
" ⅛	PWP	.05	.07	.10	....

HEAVY DUTY PORTABLE CORD
"Duracord" or Similar. Extra Reinforced

	Price Per Foot No. 18	No. 16	No. 14	No. 12	No. 10
Type PS Light 2 Cond. Port. Cord	$.07	....	....	....	....
" P Heavy 2 " " "	.08	$.09	$.10	$.12	$.16
" P " 3 " " "	....	.10	.12	.15	.20

ALL RUBBER CORD
"Tirex" "Royal" "Super-Service" "Indestructo" or Similar

	Price Per Foot No. 18	No. 16	No. 14	No. 12	No. 10
SJ Junior 2 Conductor Black	$.06	$.08	....	....	....
" " 2 " Green	.08	.10	....	....	....
" " 2 " Black	.11	.14	....	....	....
S Type Heavy 1 Conductor Black	.08	.09	$.10	$.11	$.13
" " " 2 " "	.12	.14	.19	.24	.30
" " " 3 " "	.15	.16	.24	.29	.39
" " " 4 " "	.17	.21	.29	.38	.48

HEATER CORD

Asbestos Covered	No. 18	Price Per Foot No. 16	No. 14	No. 12
Stand. Twisted or Wound Asbest. ⅛	$.05	$.06	$.08	$.10
American Beauty Heater Cord Super Flexible	....	....	.12	.21
Rockbestos Heater Cord	.07	.08	.10	.20
Universal No. 9092 Super Flexible	....	.08	....	....

"Deltabeston" Heater Cord	No. 18	Price Per Foot No. 16	No. 14	No. 12
Type A Asbestos Braid Loco Cab Cord	$.08	$.09	$.10	$.11
" C Cotton Braid	.06	.07	.08	....
" D " " on ea. cond.	.07	.08	.09	....
" E Cotton on ea. Cond. & over both	.08	.09	.10	....

NOTE—For Armored Cords See Page PL-9.
" Extension Cords See Page PL-10.
" Fixture Wire See Pages PL-26 & 27.
" Bell Wire See Page PL-27.

MISCELLANEOUS CORDS

Description	Type	Price Per Foot No. 18	No. 16	No. 14	No. 12	No. 10
Brewery Cord	CB	$.02	$.03	$.04	....	....
Canvasite Cord	CC	.03	.04	.05	....	....
Deck Cable	PWP	.05	.07	.10	....	....
Packinghouse Cable	PKWP	.03	.04	.05	....	....
Stage & Theatre Cable	T	.03	.04	.05	$.14	$.16
Packinghouse and Stage Cable	K	.03	.04	.05	....	....

Type "K" replaces Brewery, Canvasite and Packinghouse Cable. They are not included in present listing of N. E. C. Code Approved Cords.

CONDUCTING BELL CORD
Spun Silk

Number of Conductors	2 Cond.	3 Cond.	4 Cond.	5 Cond.	8 Cond.	10 Cond.	14 Cond.	19 Cond.
Price Per Foot	$.08	$.15	$.20	$.21	$.25	$.35	$.50	$.70

Note—For Armored Lamp Cord See Page PL-9.

CONDUIT, ELBOWS, COUPLINGS, BUSHINGS, ETC.

RIGID CONDUIT

	Black Per Foot	Galvd. Per Foot	Cutting & Threading Per Thread	Cutting Only Per Cut
½"	$ .10	$ .11	$.20	$.10
⅝"	.11	.12	.20	.10
¾"	.16	.17	.25	.10
1"	.22	.24	.30	.15
1¼"	.26	.29	.35	.15
1½"	.35	.39	.40	.20
2"	.55	.62	.50	.25
2½"	.72	.80	.60	.30
3"	.92	1.03	.70	.30
3½"	1.12	1.23	.80	.30
4"				

These prices apply only to the United States

THIN WALL CONDUIT

	¼" or ½"	¾"	1"	1¼"	1½"	2"
Threadless.....Per Foot	$0.09	$0.12	$0.16	$0.22	$0.26	$0.36
Adaptor Wpf.....Each	.15	.25	.35	.65	.85	1.30
Couplings or Conn...."	.15	.25	.35	.65	.85	1.30
Elbows less Coupling.....	.....	.....	.....	.50	.60	1.10

NOTE—One Coupling is included with each 10 ft. Length Conduit.

ELBOWS OR BENDS, COUPLINGS, OR UNIONS, BUSHINGS, LOCKNUTS, REDUCERS

Price Each

Size Each	Bends or Elbows Black	Bends or Elbows Galv.	Couplings Black	Couplings Galv.	Bushings Galv.	Locknut Galv.	Erickson Coupl. or Unions Galv.	Reducers
½"	$ .14	$ .16	$ .09	$ .10	$.01¾	$.01	$ .35	$ .21
¾"	.18	.21	.15	.14	.02	.01½	.50	.21
1"	.28	.32	.16	.18	.05	.02½	.70	.28
1¼"	.38	.43	.23	.24	.07	.04	1.10	.42
1½"	.51	.58	.28	.31	.09	.06	1.60	.56
2"	.83	.95	.37	.41	.15	.10	3.35	.70
2½"	1.35	1.55	.53	.59	.23	.16	6.50	1.30
3"	3.58	4.08	.72	.79	.35	.26	9.75	1.76
3½"	7.87	9.00	.96	1.04	.70	.32	.....	2.60
4"	9.10	10.40	1.20	1.30	1.10	.46	.....	3.58

Also on Page PL-10. Also on Page PL-5 Also on Page PL-12

CONDUIT PENNIES

Size		Size	
½".....	$0.01	2".....	$0.04
¾".....	.01	2½".....	.05
1".....	.01½	3".....	.07
1¼".....	.02	3½".....	.08
1½".....	.03	4".....	.10

FLEXIBLE METALLIC CONDUIT

"Greenfield", "Flexsteel", or Similar

	⅛"	¼"	⅜"	½"	¾"	1"	1¼"	1½"	2"
Single Strip Per Foot....	$.09	$.12	$.14	$.19	$.40	$.45	$.64	$.79	
Double Strip Per Foot....	.11	.14	.17	.23	.42	.50	.71	.89	

For Fittings for Metallic Conduit See Page PL-14.
For Non-Metallic Conduit or Loom See Page PL-15.
For Steel Armored Cable & Lead Covered See Next Item.

RUNNING THREAD, PIPE

	⅛" & ¼"	⅜"	½"	¾"
Price per Foot.....	$.25	$.30	$.45	$.55

CONDUIT PENNIES

	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"
Price Each.....	$.01	$.01	$.01½	$.02	$.03	$.04	$.05	$.07	$.10

CONDUIT WOOD PLUGS

	½"	¾"	1"	1¼"	1½"	2"
Price Each.....	$.02	$.03	$.04	$.08	$.14	$.22

For Pipe Straps, see Page PL-25. For Solder, Sticks, etc., Page PL-25.

CABLE, ARMORED & NON-METALLIC SHEATHED

ARMORED CABLE, "BX", "ABC", "FLEXSTEEL", OR SIMILAR

			Price Per Foot No. 14	No. 12	No. 10
TWO CONDUCTOR	Solid	Single Strip	$.05	$.08	$.10
	Stranded	" "	.....	.....	.....
THREE CONDUCTOR	Solid	" "	.08	.10	.13
	Stranded	" "	.....	.....	.....
FOUR CONDUCTOR	Solid	" "	.16	.20	.25
ONE CONDUCTOR	Solid	" "	.09	.10	.11
	Stranded	" "	.....	.....	.12
OVALFLEX	2 Conductor	" "	.08	.12	.16
	3 Conductor	" "	.12	.16	.....

			Price Per Foot No. 8	No. 6	No. 4
TWO CONDUCTOR	Solid	Single Strip	.....	.....	.....
	Stranded	" "	$.17	$.24	$.38
THREE CONDUCTOR	Solid	" "	.20	.....	.....
	Stranded	" "	.31	.30	.50
FOUR CONDUCTOR	Solid	" "	.36	.50	.....
ONE CONDUCTOR	Solid	" "	.12	.15	.....
	Stranded	" "	.13	.16	.27

Double Strip Armored Cable add 30% to above prices.

Anti-Short Fibre Bushings for ABC Cable, Each..... $.02
Clips or Staples ⅝" for Armored or Non-Metallic Cable, Each..... .01

ARMORED SERVICE ENTRANCE CABLE

	Size—No 8	Per Foot No. 6.	No. 4
Three Conductor Stranded Service Cable.....	$.30	$.40	$.50

"ABC" LEAD COVERED ARMORED CABLE

			Price Per Foot No. 14	No. 12	No. 10
Single Conductor	Solid Lead Covered	.....	$.08	.....	.....
" "	Stranded " "	.....	.....	.....	.....
Two Conductor	Solid " "	.....	.16	$.20	$.25
" "	Stranded " "	.....	.....	.....	.....
Three "	Solid " "	.....	.23	.27	.32
" "	Stranded " "	.....	.....	.....	.....

			Price Per Foot No. 8	No. 6	No. 4
Single Conductor	Solid Lead Covered	.....	.....	.....	.....
" "	Stranded " "	.....	$.16	$0.22	.....
Two "	Solid " "	.....	.....	.....	.....
" "	Stranded " "	.....	.35	.47	.....
Three "	Solid " "	.....	.....	.....	.....
" "	Stranded " "	.....	.47	.67	$.90

"ABC" ARMORED LAMP CORD

Single Strip	Per Foot No. 18	No. 16	No. 14
Plain Armored Lamp Cord, Two Conductor.....	$.10	$.12	$.15

Add 30% for Double Strip

NON-METALLIC SHEATHED CABLE

"Romex", "Loomwire", "Wireflex", or similar

(With or Without Ground Wire)	#14	#12	#10	#8	#6	#4
2 Conductor per Foot.....	$0.05	$0.07	$0.10	$0.15	$0.23	$0.28
3 Conductor per Foot.....	.08	.10	.13	.20	.27	.43
Fitting-Straps Each.....	.01	.01	.01	.01	.01	.01
Fitting-Clips Each.....	.03	.03	.03	.....	.....	.....
Fitting-Connectors Each.	.10	.10	.20	.20	.30	.55

CUTOUTS OR FUSE BLOCKS

PLUG CUTOUTS

30 Amp. Porcelain

Description		Price
Single Pole—Main Line.....	62569	$.25
Double " " "	62965	.35
Triple " " "	62165	.50
Double Pole Single Branch	61935	.35
" " Double "	62587	.55
" " Single or Double Cross Branch.....	8020	.40
Triple to D. P. Double Branch.....	62199	.60
Triple Pole Single Branch.....	8042	.65
" " Double "	62135	.85

DEAD FRONT CUTOUT BASES

Plug Type—30 Amp.

BRYANT	With Short Cover Numbers	Price	With Long Cover Numbers	Price
3 Wire Double Branch—4 Circuit..	72035	$3.35	82035	$3.65

G. E. or TRUMBULL	With Covers G.E.	Trumbull	Price	Without Cov. G.E.	Price
3 Wire Single Branch—2 Circuit.	2435	3199	$1.35	2436	$ .65
3 " Double " —4 "	2440	4199	1.80	2441	.85

ENCLOSED CARTRIDGE CUTOUTS OR BASES

Porcelain Base, 250 Volts

	0-30 Amp.	31-60 Amp.	61-100 Amp.
Single Pole Main Line Enclosed Porcelain.....	$ .40	$ .65	$1.20
Double " " " " "	.55	1.20	2.30
Triple " " " " "	.85	1.65	3.30
Double Pole Single Branch Porcelain.....	.75	1.60	....
" " Double " "	1.25	3.30	....
Triple to Double Pole Double Branch Porcelain ..	1.50	3.80	....
Triple Pole Single Branch Porcelain	1.30	3.00	....
Triple Pole Double Branch Porcelain	2.40	5.40	....
Single Pole Main Line Cutout Base 600 Volt.....	.70	1.00	1.50

SLATE BASE

250 Volt	600 Volt	30 A.	60A.	100A	200A.	400A.	600A.
Single Pole-Slate Base-250 V.		$.60	$.90	$1.25	$2.10	$5.20	$ 6.60
" " " " 600 V.	....	....	....	1.60	2.50	6.00	7.15

Prices on cutouts do not include fuses

C-SUNDRIES

GROUND CLAMPS

	⅝ to 1"	⅝ to 2"	⅝ to 3"	⅝ to 4"
Standard Adjustable Ground Clamps, any make	$.12	$.15	$.20	$.35
	No. 3	No. 4	No. 5	No. 6
Blackburn.....	$.24	$.28	$.35	$.45

Other Types	B x ⅝" & ½"	¾"	1"	1¼"	1½"	2"	2½"	3"
Chase Shawmut 3660-68	$.25	$.30	$.35	$.45	$.50	$.60	$.65	$.70
G. V. A Series 5000...	.25	.30	.35	.45	.50	.60	.65	.70

STRAPS, CLIPS OR CLAMPS

	⅜"	½"	¾"	1"	1¼"	1½"	2"	2½"	3"
Galvnzd. Straps, 2 Hole	$.01	$.01	$.01	$.01	$.02	$.02	$.04	$.05	$.06
Per Pound.....$.20									
No. Straps per Pound...	45	40	25	20	13	12	7	5	4
Light Steel Straps, 1 Hole	.04	.05	.06	.08	...	...	...	...	...
Mall. Iron Clamps, 1 Hole	.04	.05	.06	.08	.12	.18	.35	.50	.65
P & S Conduit Clamps With Bolts-Series 1400		.10	.14	.18	.20	.25			
Clips for Loom.....							2c Each or 3 for 5c		

(See Also Page PL-27)

COLORING & FROSTING LIQUID

	7 ounce Cans	15 ounce Cans	30 ounce Cans	½ Pint Bottle	1 Pint Bottle	Quart Bottle
Crescent (McGill).	.....	.....	.....	$1.25	$2.50	$5.00
Cefco.....	$2.50	$4.00	$7.50	.....	.....	.....
Franco.....	.....	.....	.....	1.25	2.25	4.00
Permacolor.....				1.65	3.00	5.00

These prices apply only to the United States

CORD & WIRE CONNECTORS

SMALL FIXTURE & WIRE CONNECTORS
Solderless

Insulated Solderless Wire or Fixture Connectors Similar to "Ideal" "Marr" "Sherman" "Simplex" "S.R.K." "Wirelets" "Wiremold" Etc.—each	$.08
E-Z Insulated Solderless Wire or Fixture Connector	.03
Non-Insulated Solderless Wire Connectors—2 Screw—All Metal	.10

SET SCREW CONNECTORS
Round Brass

Wire Size	No. 12-14	No. 10	No. 8	No. 6	No. 4
Divided Wall—2 Screws	$.06	$.08	$.09	$.10	$.14
" " 4 "	....	.16	.12	.13	.18
Hole Thru 2 "	.11	....	.13	.15	.17
" " 4 "	....	....	....	....	.20

Wire Size	No. 2	No. 1/0	No. 2/0	No. 3/0	No. 4/0
Divided Wall—2 Screws	$.15	....	....	....	....
" " 4 "	.20	$.26	$.32	$.50	$.80
Hole Thru 2 "	.20	.24	.30	....	....
" " 4 "	.22	.28	.30	.45	.60

SOLDERLESS CONNECTORS
Dossert, Frankel or Penn-Union

Size Cond.	No. 3 to 1	No. 1/0	No. 2/0	No. 3/0	No. 4/0	250,000	300,000	400,000	500,000
2 Way L's	$0.75	$0.80	$1.00	$1.20	$1.40	$1.65	$1.90	$2.50	$2.05
Cable Taps	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
3 Ways & Y's	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
Lugs FB Ang.	.55	.60	.70	.90	1.10	1.20	1.40	1.85	2.40

CORD & MOTOR CONNECTORS

	Complete No.	Complete Price	Body Only No.	Body Only Price	Cap Only No.	Cap Only Price
Arrow						
Midget Arrotex	8239	$1.00	....	....	....	....
Motor Conn.	RP-8221	.70	8221	$ .65	RP	$.10
" "	RA-8222	.75	8222	.65	RA	.15
" "	RH-8224	1.30	8224	.85	RH	.45
" "	RG-8281	1.25	8281	.80	RG	.45
" "	8334 & 35	1.30	8335	1.30	8334	1.30
Bryant						
Motor Midget	KT-130	.70	130	.65	KT	.10
" Conn.	KG-103	.90	103	.65	KG	.30
GE						
Cord Conn.	1346-1347	.90	1347	.45	1346	.45
" "	.....	.....	1351	.65	2527	.10
" "	2719	1.25	2720	.95	2721	.45
" "	2715	.75	2716	.65	2717	.10
" "	.....	.....	1347	.40	1346	.40
Hubbell						
Cord Connector	....	....	5574	.55	5896	.30
" "	6116	.75	6118	.65	5964	.10
" "	....	....	6630	.55	6631	.20
" "	6180	.65	6630	.55	6181	.10
" "	5518	.80	5574	.55	5420	.25
" "	....	....	7084	.85	7056	.55
" "	....	....	7091	1 10	7092	.75
" "	....	....	6409	.85	6149	.45
Weber						
Cord Connector	2274	.60	.74	.45	2200	.20
Wirt						
Cord Connector	56	.55				

NOTE: For Attachment Plugs and other caps—See Pages PL-16 & PL-17

E-SUNDRIES

EXTENSION CORDS—MADE UP
With Plug & Socket, but Guards-Lamps & Handles Extra

Length in Feet	With Lamp Cord and Key Socket No. 18 Twisted	With Reinforced Cord and Key Socket No. 18	With Reinforced Cord and Key Socket No. 16	With Artificial Silk Cord and Key Socket Twist. or Paral. No. 18	With Artificial Silk Cord and Key Socket Twist. or Paral. No. 16
4 Foot	$ .75	$ .80	$ .85	$ .80	$ .85
6 "	.80	.90	.95	.90	.95
8 "	.85	1.00	1.05	1.00	1.05
10 "	.90	1.10	1.20	1.10	1.20
12 "	.95	1.20	1.30	1.20	1.30
14 "	1.00	1.30	1.45	1.30	1.45
16 "	1.05	1.40	1.55	1.40	1.55
18 "	1.10	1.50	1.65	1.50	1.65
20 "	1.15	1.60	1.75	1.60	1.75
22 "	1.20	1.65	1.85	1.65	1.85
24 "	1.25	1.75	1.95	1.75	1.95

Length in Feet	With All Rubber Cord and Weatherproof Socket Light No. 18	Light No. 16	Heavy No. 18	Heavy No. 16
4 Foot	$1.00	$1.10	$1.15	$1.25
6 "	1.20	1.30	1.40	1.50
8 "	1.35	1.50	1.65	1.75
10 "	1.50	1.70	1.90	2.00
12 "	1.75	1.90	2.15	2.25
14 "	1.90	2.10	2.40	2.50
16 "	2.10	2.30	2.65	2.75
18 "	2.25	2.50	2.90	3.00
20 "	2.40	2.70	3.15	3.25
22 "	2.65	2.90	3.40	3.50
24 "	2.80	3.10	3.65	3.75

ELBOWS & BENDS
For Rigid Conduit

Size	½"	¾"	1"	1¼"	1½"
Black	$.14	$.18	$.28	$.38	$.51
Galv.	.16	.21	.32	.43	.58
Size	**2"**	**2½"**	**3"**	**3½"**	**4"**
Black	$ .83	$1.35	$3.58	$7.87	$ 9.10
Galv.	.95	1.55	4.08	9.00	10.40

EXPANSION SHIELDS & ANCHORS
(Ackerman—Johnson—Chicago Expansion Bolt —Diamond—Dryvin—Packtite—Paine—Star or Similar)

Screws Not Included.

Expansive Screw Anchors or Caulking Anchors for Machine Screws or Bolts. Size Screw or Bolt	Price
6-32 Screw	$0.06
8-32 "	.07
10-24 "	.08
12-24 "	.10
1-4x20 Bolt	.12
5-16x18 "	.15
3-8x16 "	.18
7-16x14 "	.20
1-2x13 "	.20
5-8x13 "	.30

Hammer Drive Anchors With Nail Size of Shield	Price
⅛"x¾" Shield	$0.05
⅛"x1¼" "	.06
¼"x1" "	.07
¼"x1¼" "	.08
¼"x1½" "	.09
⅝"x1¼" "	.10
⅝"x1¾" "	.12
⅝"x2¾" "	.14
⅜"x2" "	.16
⅜"x3¼" "	.20
½"x2½" "	.22
½"x3½" "	.25

Multi-Size Screw Anchors

	Screw Size 5 to 10	8 to 14	16 to 20	16 to 20
Length of Anchor	¾"	1"	1"	1¼"
Price Without Screw	$0.04	$0.05	$0.06	$0.08

LAG SCREW ANCHORS (Diamond or Similar)

Takes Lag Screw	¼"	¾"	½"	⅝"	¾"
Price Without Lag Screw	$.15	$.18	$.25	$.35	
Takes Lag Screw	¾"	¾"	¾"	1"	
Price Without Lag Screw	$.40	$.60	$.90	$1.00	

FUSES

PLUG FUSES

Standard Plug Fuses—Any Make—$.07 each or 5 for $.25
(Some Manufacturers put these fuses up 4 in a box, in which case they should be retailed at 4 for $.25.)

ENCLOSED FUSES, NON-RENEWABLE

Amps.	Non-Indicating Price Each 250 Volts Fuse	Non-Indicating Price Each 600 Volts Fuse	Indicating Price Each 250 Volts Fuse	Indicating Price Each 600 Volts Fuse
1 to 30	$ .15	$ .35	$ .25	$ .55
35 to 60	.25	.50	.40	.85
70 to 100	.80	1.15	1.25	1.85
110 to 200	1.55	1.95	2.30	3.10
225 to 400	2.75	4.20	4.50	6.80
450 to 600	4.25	6.15	6.80	9.90
650 to 800	8.90	11.15	13.85	17.35

RENEWABLE FUSES

Amps.	Fuses 250 Volts	Fuses 600 Volts	Links 250 Volts	Links 600 Volts
1 to 30	$ .50	$ 1.10	$.03	$.05
35 to 60	1.00	1.25	.05	.06
65 to 100	2.00	3.00	.10	.10
110 to 200	4.00	5.00	.15	.15
225 to 400	7.50	11.00	.30	.30
450 to 600	11.00	16.00	.60	.60

FUSE WIRE

Size in Amps.		¼	½	1	2
Price Per Pound		$66.00	$6.50	$2.65	$2.30
Price Per Foot		.01	.01	.01	.01
Size in Amps.	3	5	6	10	15
Price Per Pound	$2 00	$1.50	$1.50	$1.30	$1.30
Price Per Foot	.01	.01½	.02	.02½	.03
Size in Amps.	20	25	30	40	50
Price Per Pound	$1.00	$1.00	$1.00	$1.00	$1.00
Price Per Foot	.04	.05	.07	.08	.10
Size in Amps.	60	70	75	80	90	100
Price Per Pound	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00
Price Per Foot	.15	.20	.21	.22	.24	.25

Fuse Strip Any Amperage....$1.00 per lb.

OPEN LINK FUSES
Small Wire Type

	1 to 30 Amps.	35 to 60 Amps.	65 to 100 Amps.
Size in Amps.			
Numbers	00-0-1-2-3	2-3-5	8
Price Each	$.12	$.16	$.23

Large Strip Type

Size in Amps.	25-100	110-200	225-400
Numbers	7	7 to 16	10 to 16
Price Each	$.23	$.30	$.60
Size in Amps.	425-600	600-800	800-1600
Numbers	10 to 16	28	40
Price Each	$1.10	$1.85	$6.95

STAMPED SHEET METAL LINK FUSES

Type of Link	B	C	D	E-F-H-I-L-M
C to C Distance	1⅝	2¼	2¾	See Catalog
Price Each	$.11	$.11	$.16	$.30

These prices apply only to the United States

THREADED CONDUIT FITTINGS

STANDARD TYPES, COVERS EXTRA
"Condulets" "Taplets" "Unilets" "Electrolets" "V. V." "Adaptilets" Etc.

Form 7	½"	¾"	1"	1¼"	1½"
A	$ .32	$ .41	$ .51	$ .82	$1.06
B	.38	.47	.66	1.05	1.98
C	.48	.54	.78	1.24	1.61
CO-COV	.66	.86	.99	1.65	2.11
E	.38	.46	.66	1.06	1.37
F	For Special Form 6 Entrance Fittings See PL-13.				
F Form 7	.66	1.06	1.65	2.90	4.29
LB-LF-LL-LR-LBB	.53	.60	.86	1.39	1.85
LFB-LLB-LRB	.53	.60	.86	1.39	1.85
LBL-LBR	.86	1.06	1.25	1.65	2.64
P-PA	1.85	2.05	2.25	....	....
PC-PL	1.98	2.18	2.38	....	....
PT	2.25	2.50	2.77	....	....
PX	2.38	2.64	2.90	....	....
T All One Size	.63	.75	1.05	1.61	2.23
TA All One Size	.92	.99	1.32	2.05	3.04
TB-TL-TR	.63	.75	1.05	1.61	2.23
U-UB	.63	.71	1.03	1.66	2.22
X All One Size	.79	1.02	1.39	1.85	2.35
Gaskets	.13	.13	.20	.26	.26
Reducers	.20	.20	.26	.40	.53
Connectors CCT	.33	.40	.46	1.45	1.85
Unions U. N. Y.	.60	.66	.99	1.58	1.38

Form 7	2"	2½"	3"	3½"	4"
A	$2.19	$5.20	$6.20	$10.10	$11.15
B	3.43	5.20	6.95	8.68	15.87
C	3.21	5.95	7.69	11.16	13.64
CO-COV	4.29	6.45	9.80	15.62	17.11
E	2.83	5.20	6.20	10.10	11.15
F	For Special Form 6 Entrance Fittings See PL-13.				
F Form 7	6.60	10.17	12.65	22.45	31.00
LB-LF-LL-LR-LBB	3.30	6.20	8.06	13.00	14.88
LFB-LLB-LRB	3.30	6.20	8.06	13.00	14.88
LBL-LBR-LW	3.50	8.12	....	....	....
T All One Size	3.36	6.20	9.30	13.65	16.12
TA All One Size	5.22	....	....	....	....
TB-TL-TR	3.36	6.20	9.30	13.65	16.12
U-UB	3.95	7.44	9.67	15.62	....
X All One Size	4.62	7.44	12.40	....	....
Gaskets	.33	.50	.50	.62	.62
Reducers	.66	1.24	1.67	2.48	3.40
Connectors CCT	....	....	....	....	....
Unions U. N. Y.	3.63	5.89	....	....	....

For Form 6 LB Fittings See PL-13

COVERS For Above

	½"	¾"	1"	1¼"
Porcelain Covers with Holes	$ .13	$ .20	$ .33	$ .47
Composition " " "	.26	.40	.66	1.32
" " Blank	.40	.53	.79	1.45
Porcelain " For Drop Cord	.46	.53	....	....
" " Weatherproof	.21	.33	....	....
Metal Covers Blank Sheet Steel	.11	.15	.30	.42
" " " Cast Iron	.22	.30	.46	.66
" " with ⅛ Nipple	.26	.33	.46	....
" " " ¼ "	.30	.37	.50	....
" " " ⅜ "	.33	.39	.53	....

	1½"	2"	2½&3"	3½&4"
Porcelain Covers with Holes	$ .63	$ .79	$1.06	$1.19
Composition " "	1.45	1.58	2.12	2.30
" " Blank	1.58	1.85	4.29	5.94
Porcelain " For Drop Cord	....	....	....	....
" " Weatherproof	....	....	....	....
Metal Covers Blank Sheet Steel	.59	.74	.99	1.05
" " " Cast Iron	.92	1.19	1.52	1.65
" " with ⅛ Nipple	....	....	....	....
" " " ¼ "	....	....	....	....
" " " ⅜ "	....	....	....	....

RECEPTACLES & ROSETTES For Above

	½"	¾"	1"
Plug Receptacles 10 Amp. 2 Pole 250 Watt	$.53	$ .59	$.66
" " 15 " 2 " 125 "	.53	.59	.66
" " 20 " 2 " 250 "	.72	.79	.86
" " 10 " 3 " 250 "	.79	.86	....
" " 15 " 3 " 125 "	.79	.86	....
" " 20 " 3 " 250 "	.99	1.05	....
Lamp Receptacle 660 Watt with Shade Holder	.40	.46	.53
Cord Rosette " "	.40	.46	.53

FS SERIES FOR FLUSH DEVICES
Shallow Type Without Covers, Any Make

No. Gangs	No. Pipe Outlets	Series	½"	¾"	1"
Single Gang	One	FS-FSA	$ .86	$ .99	$1.12
" "	Two	FSC-FSL-FSR-FSLA-FSS-FSAA	.99	1.19	1.45
" "	Three	FSCA-FSCC-FSCT-FST	1.32	1.65	1.91
" "	Four	FSX-FSCD	1.58	1.98	2.24
Two Gang	One	FS-FSA	1.58	1.71	1.85
" "	Two	FSC-FSS	1.71	1.85	2.05
" "	Three	FSD	1.91	2.05	2.18
2 Gang Tandem	One	FS	2.18	2.31	2.44
" " "	Two	FSC	2.31	2.44	2.57
Three Gang	One	FS-FSA	.....	2.38	2.57
" "	Two	FSC	.....	2.51	2.71
" "	Four	FSD	2.57	2.84	3.04
Four Gang	One	FS-FSA	.....	2.90	3.16
" "	Two	FSC-FSSE	.....	3.10	3.30
" "	Five	FSD	3.43	3.76	4.10

COVERS FOR FS FITTINGS

Description	Single Gang	2 Gang	3 Gang	4 Gang
Metal Cover for Flush or Surface Push Button Tumbler Switches	$ .20	$ .40	$ .59	$ .79
Metal Cast Covers Guarded for Switches	.46	.86	1.32	1.85
" Covers for Single Flush Receptacles	.33	.66	....	....
" " " Duplex " "	.40	.79	....	....
" " " Single " " Lift Cover	.79	.58	....	....
" " with ¾ Brass Nipple	.53	....	....	....
" " " ½ " "	.59	....	....	....
" " For Pilot Lamp Rec. with Jewel	1.32	....	....	....
" Iron Vaporproof with Operating Mechanism	2.31	3.96	....	....
" Brass " " " "	3.30	7.59	....	....
" Blank Cover Sheet Steel	.13	.26	.53	.79
" " " Cast	.33	.66	.99	1.32
Porcelain Cover with Holes	.26	....	....	....

COMBINATION COVERS FOR FS SERIES

2 Gang for One Switch and one Sgle. or Duplex Receptacle	$ .56
2 " " " " " Bull's Eye with Jewel	1.65
2 " " " " One lift cover Receptacle	.99

RECEPTACLES & PLUGS

Type Crouse-Hinds or Similar	3 Pole, 250 Volt D. C.—600 Volt A. C. Style 1						
	15 Amp.			30 Amp.		60 Amp.	
	½"	¾"	1"	1"	1¼"	1¼"	1½"
QEE Receptacle	$9.60	$9.75	$9.85	.....	.....	.....	.....
QE "	9.50	9.60	9.75	.....	.....	.....	.....
AJA "	.....	.....	.....	$19.60	$19.70	$21.20	$21.30
AJB "	.....	.....	.....	18.80	18.90	20.90	21.00
CP Watertight Plugs	9.10	9.10	9.10	11.50	11.50	16.85	16.85

G & H WITHOUT ADJUSTABLE BAR

Type Crouse Hinds or Similar	5 Amp.			10 Amp.		
	½"	¾"	1"	½"	¾"	1"
G	$ .53	$ .66	$ .99	$ .66	$ .86	$1.12
GL	.59	.73	1.05	.73	.92	1.19
GA-GLA-GT	.79	.92	1.25	.92	1.12	1.39
GTA-GX	.99	1.12	1.58	1.12	1.32	1.72
GXA	1.19	1.32	1.85	1.32	1.52	1.98
H	.40	.53	.86	.53	.73	.99
HA	.46	.59	.92	.59	.79	1.05
HH	.53	.66	.99	.66	.86	1.12
HHC	.79	.92	1.25	.92	1.12	1.39
HLA	.59	.73	1.05	.73	.92	1.19

Type Crouse Hinds or Similar	20 Amp		
	½"	¾"	1"
G	$ .92	$ .99	$1.32
GL	.99	1.12	1.52
GA-GLA-GT	1.19	1.32	1.72
GTA-GX	1.39	1.58	2.11
GXA	1.58	1.85	2.38
H	.79	.86	1.19
HA	.86	.92	1.32
HH	.92	.99	1.32
HHC	1.19	1.32	1.72
HLA	.99	1.12	1.52

G & H WITH ADJUSTABLE BAR

Type Crouse Hinds or Similar	5 Amp.			10 Amp.		
	½"	¾"	1"	½"	¾"	1"
G	$ .73	$ .86	$1.19	$ .86	$1.06	$1.32
GL	.79	.92	1.25	.92	1.12	1.39
GA-GLA-GT	.99	1.12	1.45	1.12	1.32	1.58
GTA-GX	1.19	1.32	1.78	1.32	1.52	1.91
GXA	1.39	1.52	2.05	1.52	1.72	2.18
H	.59	.73	1.05	.73	.92	1.19
HA	.66	.79	1.12	.79	.99	1.25
HH	.73	.86	1.19	.86	1.05	1.32
HHC	.99	1.12	1.45	1.12	1.32	1.58
HLA	.79	.92	1.25	.92	1.12	1.39

Type Crouse Hinds or Similar	20 Amp.		
	½"	¾"	1"
G	$1.19	$1.25	$1.58
GL	1.25	1.39	1.78
GA-GLA-GT	1.45	1.58	1.98
GTA-GX	1.65	1.85	2.38
GXA	1.85	2.11	2.64
H	1.05	1.12	1.45
HA	1.12	1.19	1.58
HH	1.19	1.25	1.58
HHC	1.45	1.58	1.98
HLA	1.25	1.39	1.78

COVERS FOR G & H SERIES

Description	For G & H Fittings Without Adjustable Bar		For G & H Fittings With Adjustable Bar 5 & 10 Amp.	
	5 Amp.	10 Amp.	20 Amp.	20 Amp
Porcelain Cover with Wire Holes	$.26	$.33	$ .53	$.20 $.46
Blank Sheet Steel Cover	.20	.26	.33	.13 .33
" Cast " "	.33	.40	.53	.26 .46
Sheet Steel with ¼" Brass Nipple	.33	.40	.46	.26 .40
" " " ½" " "	.40	.46	.53	.33 .46
" " " ¾" " "	.46	.53	.59	.40 .53
" " " 1" " "	.53	.59	.66	.46 .59
Receptacle Covers No Shadeholder	.66	.66	.....	....
" " With "	1.05	.....	.....	....

DEVICES FOR G & H SERIES

Lamp Receptacles one piece with or without Shadeholder Groove	$.33
" " two " " " " "	.66
" " " " without " "	.59
Cord Rosette Porcelain	.53
" " Composition	.66

J & K SERIES WEATHERPROOF

	½"	¾"	1"
J	$ .79	$ .99	$1.39
JA-JB-JU	.92	1.12	1.52
JL	1.12	1.25	1.39
JT	1.25	1.39	1.52
JX	1.39	1.52	1.72
K	.66	.86	1.25
KA-KB-KC-KD	.79	.99	1.39

These prices apply only to the United States

CORD & WIRE CONNECTORS

SMALL FIXTURE & WIRE CONNECTORS
Solderless

Insulated Solderless Wire or Fixture Connectors Similar to "Ideal" "Marr" "Sherman" "Simplex" "S.R.K." "Wireleta" "Wiremold" Etc.—each $.08
E-Z Insulated Solderless Wire or Fixture Connector ..... .03
Non-Insulated Solderless Wire Connectors—2 Screw—All Metal ..... .10

SET SCREW CONNECTORS
Round Brass

	Wire Size	No. 12-14	No. 10	No. 8	No. 6	No. 4
Divided Wall—2 Screws		$.06	$.08	$.09	$.10	$.14
" " 4 "		....	.16	.12	.13	.18
Hole Thru 2 "		.11	....	.13	.15	.17
" " 4 "		....	....	....	....	.20

	Wire Size	No. 2	No. 1/0	No. 2/0	No. 3/0	No. 4/0
Divided Wall-2 Screws		$.15	....	....	....	....
" " 4 "		.20	$.26	$.32	$.50	$.80
Hole Thru 2 "		.20	.24	.30	....	....
" " 4 "		.22	.28	.30	.45	.60

SOLDERLESS CONNECTORS
Dossert, Frankel or Penn-Union

Size Cond.	No. 3 to 1	No. 1/0	No. 2/0	No. 3/0	No. 4/0	250,000	300,000	400,000	500,000
2 Way L's	$0.75	$0.80	$1.00	$1.20	$1.40	$1.65	$1.90	$2.50	$2.05
Cable Taps	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
3 Ways & Y's	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
Lugs FB Ang.	.55	.60	.70	.90	1.10	1.20	1.40	1.85	2.40

CORD & MOTOR CONNECTORS

	Complete No.	Complete Price	Body Only No.	Body Only Price	Cap Only No.	Cap Only Price
Arrow						
Midget Arrotex	8239	$1.00	....	....	....	....
Motor Conn.	RP-8221	.70	8221	$ .65	RP	$.10
" "	RA-8222	.75	8222	.65	RA	.15
" "	RH-8224	1.30	8224	.85	RH	.45
" "	RG-8281	1.25	8281	.80	RG	.45
" "	8334 & 35	1.30	8335	1.30	8334	1.30
Bryant						
Motor Midget	KT-130	.70	130	.65	KT	.10
" Conn.	KG-103	.90	103	.65	KG	.30
GE						
Cord Conn.	1346-1347	.90	1347	.45	1346	.45
" "	.....	.....	1351	.65	2527	.10
" "	2719	1.25	2720	.95	2721	.45
" "	2715	.75	2716	.65	2717	.10
" "	.....	.....	1347	.40	1346	.40
Hubbell						
Cord Connector	....	....	5574	.55	5896	.30
" "	6116	.75	6118	.65	5964	.10
" "	....	....	6630	.55	6631	.20
" "	6180	.65	6630	.55	6181	.10
" "	5518	.80	5574	.55	5420	.25
" "	....	....	7084	.85	7056	.55
" "	....	....	7091	1 10	7092	.75
" "	....	....	6409	.85	6149	.45
Weber						
Cord Connector	2274	.60	.74	.45	2200	.20
Wirt						
Cord Connector	56	.55				

NOTE: For Attachment Plugs and other caps—See Pages PL-16 & PL-17

E-SUNDRIES

EXTENSION CORDS—MADE UP
With Plug & Socket, but Guards-Lamps & Handles Extra

Length in Feet	With Lamp Cord and Key Socket No. 18 Twisted	With Reinforced Cord and Key Socket No. 18	With Reinforced Cord and Key Socket No. 16	With Artificial Silk Cord and Key Socket Twist. or Paral. No. 18	With Artificial Silk Cord and Key Socket Twist. or Paral. No. 16
4 Foot	$ .75	$ .80	$ .85	$ .80	$ .85
6 "	.80	.90	.95	.90	.95
8 "	.85	1.00	1.05	1.00	1.05
10 "	.90	1.10	1.20	1.10	1.20
12 "	.95	1.20	1.30	1.20	1.30
14 "	1.00	1.30	1.45	1.30	1.45
16 "	1.05	1.40	1.55	1.40	1.55
18 "	1.10	1.50	1.65	1.50	1.65
20 "	1.15	1.60	1.75	1.60	1.75
22 "	1.20	1.65	1.85	1.65	1.85
24 "	1.25	1.75	1.95	1.75	1.95

Length in Feet	With All Rubber Cord and Weatherproof Socket Light No. 18	Light No. 16	Heavy No. 18	Heavy No. 16
4 Foot	$1.00	$1.10	$1.15	$1.25
6 "	1.20	1.30	1.40	1.50
8 "	1.35	1.50	1.65	1.75
10 "	1.50	1.70	1.90	2.00
12 "	1.75	1.90	2.15	2.25
14 "	1.90	2.10	2.40	2.50
16 "	2.10	2.30	2.65	2.75
18 "	2.25	2.50	2.90	3.00
20 "	2.40	2.70	3.15	3.25
22 "	2.65	2.90	3.40	3.50
24 "	2.80	3.10	3.65	3.75

ELBOWS & BENDS
For Rigid Conduit

Size	½"	¾"	1"	1¼"	1½"
Black	$.14	$.18	$.28	$.38	$.51
Galv.	.16	.21	.32	.43	.58
Size	**2"**	**2½"**	**3"**	**3½"**	**4"**
Black	$ .83	$1.35	$3.58	$7.87	$ 9.10
Galv.	.95	1.55	4.08	9.00	10.40

EXPANSION SHIELDS & ANCHORS
(Ackerman—Johnson—Chicago Expansion Bolt —Diamond—Dryvin—Packtite—Paine—Star or Similar)

Screws Not Included.

Expansive Screw Anchors or Caulking Anchors for Machine Screws or Bolts. Size Screw or Bolt	Price
6-32 Screw	$0.06
8-32 "	.07
10-24 "	.08
12-24 "	.10
1-4x20 Bolt	.12
5-16x18 "	.15
3-8x16 "	.18
7-16x14 "	.20
1-2x13 "	.20
5-8x13 "	.30

Hammer Drive Anchors With Nail Size of Shield	Price
½"x⅜" "	$0.05
½"x1¼" "	.06
¾"x1" "	.07
¾"x1¼" "	.08
¾"x1½" "	.09
⅞"x1¼" "	.10
⅞"x1¾" "	.12
⅞"x2¼" "	.14
1"x2" "	.16
1"x3¼" "	.20
1½"x2¼" "	.22
1½"x3½" "	.25

Multi-Size Screw Anchors

	Screw Size 5 to 10	8 to 14	16 to 20	16 to 20
Length of Anchor	¾"	1"	1"	1¼"
Price Without Screw	$0.04	$0.05	$0.06	$0.08

LAG SCREW ANCHORS (Diamond or Similar)

Takes Lag Screw	⅛"	¼"	⅜"	½"
Price Without Lag Screw	$.15	$.18	$.25	$.35
Takes Lag Screw	⅝"	¾"	⅞"	1"
Price Without Lag Screw	$.40	$.60	$.90	$1.00

FUSES

PLUG FUSES
Standard Plug Fuses—Any Make—$.07 each or 5 for $.25
(Some Manufacturers put these fuses up 4 in a box, in which case they should be retailed at 4 for $.25.)

ENCLOSED FUSES, NON-RENEWABLE

Amps.	Non-Indicating Price Each 250 Volts Fuse	Non-Indicating Price Each 600 Volts Fuse	Indicating Price Each 250 Volts Fuse	Indicating Price Each 600 Volts Fuse
1 to 30	$ .15	$ .35	$ .25	$ .55
35 to 60	.25	.50	.40	.85
70 to 100	.80	1.15	1.25	1.85
110 to 200	1.55	1.95	2.30	3.10
225 to 400	2.75	4.20	4.50	6.80
450 to 600	4.25	6.15	6.80	9.90
650 to 800	8.90	11.15	13.85	17.35

RENEWABLE FUSES

Amps.	Fuses 250 Volts	Fuses 600 Volts	Links 250 Volts	Links 600 Volts
1 to 30	$ .50	$ 1.10	$.03	$.03
35 to 60	1.00	1.25	.05	.05
65 to 100	2.00	3.00	.10	.10
110 to 200	4.00	5.00	.15	.15
225 to 400	7.50	11.00	.30	.30
450 to 600	11.00	16.00	.60	.60

FUSE WIRE

Size in Amps.	¼	½	1	2	
Price Per Pound	$66.00	$6.50	$2.65	$2.30	
Price Per Foot	.01	.01	.01	.01	
Size in Amps.	3	5	6	10	15
Price Per Pound	$2 00	$1.50	$1.50	$1.30	$1.30
Price Per Foot	.01	.01½	.02	.02½	.03
Size in Amps.	20	25	30	40	50
Price Per Pound	$1.00	$1.00	$1.00	$1.00	$1.00
Price Per Foot	.04	.05	.07	.08	.10

Size in Amps.	60	70	75	80	90	100
Price Per Pound	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00
Price Per Foot	.15	.20	.21	.22	.24	.25

Fuse Strip Any Amperage....$1.00 per lb.

OPEN LINK FUSES
Small Wire Type

	1 to 30 Amps.	35 to 60 Amps.	65 to 100 Amps.
Size in Amps.			
Numbers	00-0-1-2-3	2-3-5	8
Price Each	$.12	$.16	$.23

Large Strip Type

	25-100	110-200	225-400
Size in Amps.			
Numbers	7	7 to 16	10 to 16
Price Each	$.23	$.30	$.60

	425-600	600-800	800-1500
Size in Amps.			
Numbers	10 to 16	28	40
Price Each	$1.10	$1.85	$6.95

STAMPED SHEET METAL LINK FUSES

Type of Link	B	C	D	E-F-H-I-L-M
C to C Distance	1⅝	2¼	2⅝	See Catalog
Price Each	$.11	$.11	$.16	$.50

These prices apply only to the United States

THREADED CONDUIT FITTINGS

STANDARD TYPES, COVERS EXTRA
"Condulets" "Tapletes" "Unilets" "Electrolets" "V. V." "Adaptilets" Etc.

Form 7	½"	¾"	1"	1¼"	1½"
A	$ .32	$ .41	$ .51	$ .82	$1.06
B	.38	.47	.66	1.65	1.98
C	.48	.54	.78	1.24	1.61
CO-COV	.66	.86	.99	1.65	2.11
E	.38	.46	.66	1.06	1.37
F	For Special Form 6 Entrance Fittings See PL-13.				
F Form 7	.66	1.06	1.65	2.90	4.29
LB-LF-LL-LR-LBB	.53	.60	.86	1.39	1.85
LFB-LLB-LRB	.53	.60	.86	1.39	1.85
LBL-LBR	.86	1.06	1.25	1.65	2.64
P-PA	1.85	2.05	2.25	....	....
PC-PL	1.98	2.18	2.38	....	....
PT	2.25	2.50	2.77	....	....
PX	2.38	2.64	2.90	....	....
T All One Size	.63	.75	1.05	1.61	2.23
TA All One Size	.92	.99	1.32	2.05	3.04
TB-TL-TR	.63	.75	1.05	1.61	2.23
U-UB	.63	.71	1.03	1.66	2.22
X All One Size	.79	1.02	1.39	1.85	2.35
Gaskets	.13	.13	.20	.26	.26
Reducers	.20	.20	.26	.40	.53
Connectors CCT	.33	.40	.46	1.45	1.85
Unions U. N. Y.	.60	.66	.99	1.58	1.38

Form 7	2"	2½"	3"	3½"	4"
A	$2.19	$5.20	$6.20	$10.10	$11.15
B	3.43	5.20	6.95	8.88	15.87
C	3.21	5.95	7.69	11.16	13.64
CO-COV	4.29	6.45	9.80	15.62	17.11
E	2.83	5.20	6.20	10.10	11.15
F	For Special Form 6 Entrance Fittings See PL-13.				
F Form 7	6.60	10.17	12.65	22.45	31.00
LB-LF-LL-LR-LBB	3.30	6.20	8.06	13.00	14.88
LFB-LLB-LRB	3.30	6.20	8.06	13.00	14.88
LBL-LBR-LW	3.50	8.12	....	....	....
T All One Size	3.36	6.20	9.30	13.65	16.12
TA All One Size	5.22	....	....	....	....
TB-TL-TR	3.36	6.20	9.30	13.65	16.12
U-UB	3.95	7.44	9.67	15.62	....
X All One Size	4.62	7.44	12.40	....	....
Gaskets	.33	.50	.50	.62	.62
Reducers	.66	1.24	1.67	2.48	3.40
Connectors CCT	....	....	....	....	....
Unions U. N. Y.	3.63	5.89	....	....	....

For Form 6 LB Fittings See PL-13

COVERS For Above

	½"	¾"	1"	1¼"
Porcelain Covers with Holes	$ .13	$ .20	$ .33	$ .47
Composition " " "	.26	.40	.66	1.32
" " Blank	.40	.53	.79	1.45
Porcelain " For Drop Cord	.46	.53	....	....
" " Weatherproof	.21	.33	....	....
Metal Covers Blank Sheet Steel	.11	.15	.30	.42
" " " Cast Iron	.22	.30	.46	.66
" " with ½ Nipple	.26	.33	.46	....
" " " ¾ "	.30	.37	.50	....
" " " 1 "	.33	.39	.53	....

	1½"	2"	2½&3"	3½&4"
Porcelain Covers with Holes	$ .63	$ .79	$1.06	$1.19
Composition " " "	1.45	1.58	2.12	2.30
" " Blank	1.58	1.85	4.29	5.94
Porcelain " For Drop Cord	....	....	....	....
" " Weatherproof	....	....	....	....
Metal Covers Blank Sheet Steel	.59	.74	.99	1.05
" " " Cast Iron	.92	1.19	1.52	1.65
" " with ½ Nipple	....	....	....	....
" " " ¾ "	....	....	....	....
" " " 1 "	....	....	....	....

RECEPTACLES & ROSETTES For Above

	½"	¾"	1"
Plug Receptacles 10 Amp. 2 Pole 250 Watt	$.53	$ .59	$.66
" " 15 " 2 " 125 "	.53	.59	.66
" " 20 " 2 " 250 "	.72	.79	.86
" " 10 " 3 " 250 "	.79	.86	....
" " 15 " 3 " 125 "	.79	.86	....
" " 20 " 3 " 250 "	.99	1.05	....
Lamp Receptacle 660 Watt with Shade Holder	.40	.46	.53
Cord Rosette " "	.40	.46	.53

FS SERIES FOR FLUSH DEVICES
Shallow Type Without Covers, Any Make

No. Gangs	No. Pipe Outlets	Series	½"	¾"	1"
Single Gang	One	FS-FSA	$ .86	$ .99	$1.12
" "	Two	FSC-FSL-FSR-FSLA-FSS-FSAA	.99	1.19	1.45
" "	Three	FSCA-FSCC-FSCT-FST	1.32	1.65	1.91
" "	Four	FSX-FSCD	1.58	1.98	2.24
Two Gang	One	FS-FSA	1.58	1.71	1.85
" "	Two	FSC-FSS	1.71	1.85	2.05
" "	Three	FSD	1.91	2.05	2.18
2 Gang Tandem	One	FS	2.18	2.31	2.44
" " "	Two	FSC	2.31	2.44	2.57
Three Gang	One	FS-FSA	.....	2.38	2.57
" "	Two	FSC	.....	2.51	2.71
" "	Four	FSD	2.57	2.84	3.04
Four Gang	One	FS-FSA	.....	2.90	3.16
" "	Two	FSC-FSSE	.....	3.10	3.30
" "	Five	FSD	3.43	3.76	4.10

COVERS FOR FS FITTINGS

Description	Single Gang	2 Gang	3 Gang	4 Gang
Metal Cover for Flush or Surface Push Button Tumbler Switches	$ .20	$ .40	$ .59	$ .79
Metal Cast Covers Guarded for Switches	.46	.86	1.32	1.85
" Covers for Single Flush Receptacles	.33	.66	....	....
" " " Duplex " "	.40	.79	....	....
" " " Single " " Lift Cover	.79	.58	....	....
" " with ½ Brass Nipple	.53	....	....	....
" " " ½ "	.59	....	....	....
" " For Pilot Lamp Rec. with Jewel	1.32	....	....	....
" Iron Vaporproof with Operating Mechanism	2.31	3.96	....	....
" Brass " " " "	3.30	7.59	....	....
" Blank Cover Sheet Steel	.13	.26	.53	.79
" " " Cast	.33	.66	.99	1.32
Porcelain Cover with Holes	.26	....	....	....

COMBINATION COVERS FOR FS SERIES

2 Gang for One Switch and one Sgle. or Duplex Receptacle	$ .66
2 " " " " " " Bull's Eye with Jewel	1.65
2 " " " " One lift cover Receptacle	.99

RECEPTACLES & PLUGS

Type Crouse-Hinds or Similar	3 Pole, 250 Volt D. C.—600 Volt A. C. Style 1 15 Amp. ½"	¾"	1"	30 Amp. 1"	1¼"	60 Amp. 1¼"	1½"
QEE Receptacle	$9.60	$9.75	$9.85	....	....	....	....
QE "	9.50	9.60	9.75	....	....	....	....
AJA "	.....	.....	.....	$19.60	$19.70	$21.20	$21.30
AJB "	.....	.....	.....	18.80	18.90	20.90	21.00
CP Watertight Plugs	9.10	9.10	9.10	11.50	11.50	16.85	16.85

G & H WITHOUT ADJUSTABLE BAR

Type Crouse Hinds or Similar	5 Amp. ½"	¾"	1"	10 Amp. ½"	¾"	1"
G	$ .53	$ .66	$ .99	$ .66	$ .86	$1.12
GL	.59	.73	1.05	.73	.92	1.19
GA-GLA-GT	.79	.92	1.25	.92	1.12	1.39
GTA-GX	.99	1.12	1.58	1.12	1.32	1.72
GXA	1.19	1.32	1.85	1.32	1.52	1.98
H	.40	.53	.86	.53	.73	.99
HA	.46	.59	.92	.59	.79	1.05
HH	.53	.66	.99	.66	.86	1.12
HHC	.79	.92	1.25	.92	1.12	1.39
HLA	.59	.73	1.05	.73	.92	1.19

Type Crouse Hinds or Similar	20 Amp ½"	¾"	1"
G	$ .92	$ .99	$1.32
GL	.99	1.12	1.52
GA-GLA-GT	1.19	1.32	1.72
GTA-GX	1.39	1.58	2.11
GXA	1.58	1.85	2.38
H	.79	.86	1.19
HA	.86	.92	1.32
HH	.92	.99	1.32
HHC	1.19	1.32	1.72
HLA	.99	1.12	1.52

G & H WITH ADJUSTABLE BAR

Type Crouse Hinds or Similar	5 Amp. ½"	¾"	1"	10 Amp. ½"	¾"	1"
G	$ .73	$ .86	$1.19	$ .86	$1.06	$1.32
GL	.79	.92	1.25	.92	1.12	1.39
GA-GLA-GT	.99	1.12	1.45	1.12	1.32	1.58
GTA-GX	1.19	1.32	1.78	1.32	1.52	1.91
GXA	1.39	1.52	2.05	1.52	1.72	2.18
H	.50	.73	1.05	.73	.92	1.19
HA	.66	.79	1.12	.79	.99	1.25
HH	.73	.86	1.10	.86	1.05	1.32
HHC	.99	1.12	1.45	1.12	1.32	1.58
HLA	.79	.92	1.25	.92	1.12	1.39

Type Crouse Hinds or Similar	20 Amp. ½"	¾"	1"
G	$1.19	$1.25	$1.58
GL	1.25	1.39	1.78
GA-GLA-GT	1.45	1.58	1.98
GTA-GX	1.65	1.85	2.38
GXA	1.85	2.11	2.64
H	1.05	1.12	1.45
HA	1.12	1.19	1.58
HH	1.19	1.25	1.58
HHC	1.45	1.58	1.98
HLA	1.25	1.39	1.78

COVERS FOR G & H SERIES

Description	For G & H Fittings Without Adjustable Bar 5 Amp.	10 Amp.	20 Amp.	For G & H Fittings With Adjustable Bar 5 & 10 Amp.	20 Amp
Porcelain Cover with Wire Holes	$.26	$.33	$ .53	$.20	$.46
Blank Sheet Steel Cover	.20	.26	.33	.13	.33
" Cast " "	.33	.40	.53	.26	.46
Sheet Steel with ½" Brass Nipple	.33	.40	.46	.26	.40
" " " ¾" " "	.40	.46	.53	.33	.46
" " " 1" " "	.46	.53	.59	.40	.53
" " " 1½" " "	.53	.59	.66	.46	.59
Receptacle Covers No Shadeholder	.66	.66	.....	....	....
" " With "	1.05	.....	.....	....	....

DEVICES FOR G & H SERIES

Lamp Receptacles one piece with or without Shadeholder Groove	$.33
" " two " " " "	.66
" " " " without " "	.59
Cord Rosette Porcelain	.53
" " Composition	.66

J & K SERIES WEATHERPROOF

	½"	¾"	1"
J	$ .79	$ .99	$1.39
JA-JB-JU	.92	1.12	1.52
JL	1.12	1.25	1.39
JR	1.25	1.39	1.52
JX	1.39	1.52	1.72
K	.66	.86	1.25
KA-KB-KC-KD	.79	.99	1.39

These prices apply only to the United States

DEVICES FOR J K SERIES

Lamp Receptacle S. H. Groove	$0.59
" " No S. H. Groove	.53
Plug Receptacle 10 & 15 Amp	.66
" " 20 "	.86
" " 10 " 3-wire	.92
Cord Rosette	.46
Blank Cast Cover	.40

SERIES V VAPORPROOF TYPE
Adapti Crouse-Hinds or Similar
Prices include Globe & Guard

	Form 75 ½"	¾"	1"
V-VA & VDA as above	$5.60	$5.65	$5.70
VC & VL " "	5.70	5.80	5.90
VE-VG & VT " "	5.90	6.00	....
VX " "	6.00	6.25	6.45
VF " "	6.10	6.20	....
VD & VJ " "	6.40	6.50	6.60
	Form 200 ½"	¾"	1"
V-VA & VDA as above	$6.70	$6.75	$6.80
VC & VL " "	6.80	6.90	7.00
VE-VG & VT " "	6.80	6.90	....
VX " "	7.05	7.30	7.50
VF " "	7.15	7.25	....
VD & VJ " "	7.35	7.45	7.55

ACCESSORIES & PARTS FOR V SERIES

	Price Form 75	Form 200
Globes only, clear glass	$1.05	$1.05
" " opal	1.45	2.25
" " green, blue or orange	2.25	3.10
" " ruby	3.10	3.85
Guards Cast Aluminum	2.40	2.95
Half Shades	1.60	2.30
Receptacle with Gasket	.55	.55
Reflector Holders Cast Aluminum	.65	.85
Adaptor	1.00	1.20

GS VAPORPROOF FIXTURES
Crouse-Hinds Cat. 2200 Page 56
Adapti Bulletin 107E Page 19B

Pendant or Bracket Fixture with Recep. Globe and Guard Form 75	$7.55
" " " " " " " " " " 200	8.45

FITTINGS, THREADLESS

STANDARD TYPES
"Kondu" "Adaptilets" "Appleton" Crouse-Hinds or Similar

Size—	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"
A Covers Extra	$0.44	$0.58	$0.79	$1.41	$1.98	$3.50	$ 8.30	$ 9.92	$15.10	$17.35
B " "	.50	.66	.90	2.25	2.90	4.75	8.30	10.65	13.65	22.00
C " "	.70	.88	1.25	2.43	3.45	5.85	12.15	15.12	21.10	26.00
CO " "	.90	1.20	1.44	2.84	3.96	6.93	....	....	....	....
E " "	.50	.63	.88	1.65	2.30	4.15	8.30	9.92	15.00	17.35
LB-LL-LR	.76	.92	1.32	2.57	3.70	5.94	12.40	15.50	22.95	27.30
LBL-LBR	1.19	1.57	2.18	....	....	....	....	....	....	....
T&TB All 1 Size	.98	1.27	1.74	3.39	5.00	7.33	15.50	20.45	28.50	34.70
TA " 1 "	1.39	1.72	2.24	....	....	....	....	....	....	....
TL-TR	.98	1.30	1.74	....	....	....	....	....	....	....
U-UB	.86	1.05	1.50	....	....	....	....	....	....	....
X All One Size	1.25	1.72	2.30	4.22	6.05	9.90	....	....	....	....

TYPE UCC AND UCB

Unions Thick Walls	$.37	$.53	$.79	$1.19	$1.65	$3.30	$5.30	$7.90	$10.50	$15.84
" Thin "	.26	.40	.66	1.05	1.39	2.77	....	....	....	....
Conn. Thick "	.26	.37	.76	.92	....	....	....	....	....	....
" Thin "	.22	.33	.59	....	....	....	....	....	....	....
UCT Adapter	.05	.08	.13	....	....	....	....	....	....	....

TYPE FS SERIES
For Flush Devices

Type	One Gang ½"	¾"	1"	Two Gang ½"	¾"	Three Gang ¾"	Four Gang ¾"
FS	$0.99	$1.19	.....	$1.72	$1.91	$2.57	$3.10
FSA	.99	....	....	....	....	....	....
FSC	1.25	1.52	$1.91	1.98	2.18	2.90	3.50
FSD	....	....	....	2.24	2.57	....	....
FSL-FSR	1.25	1.52	....	....	....	....	....
FSLA	1.25	....	....	....	....	....	....
FSCT	1.65	2.18	2.57	....	....	....	....
FSX	2.04	2.84	3.23	....	....	....	....

TYPE G-H SERIES

			With Adjustable Bar	Without Bar
G	Form 5	½"	$0.96	$0.77
		¾"	1.20	1.00
	Form 10	½"	1.09	.90
		¾"	1.40	1.20
GL	Form 5	½"	1.03	.85
	" 10	½"	1.16	.95
GT	Form 5	½"	1.36	1.14
		¾"	1.60	1.45
H	Form 5	½"	.72	.52
		¾"	.90	.70
	Form 10	½"	.85	.66

TYPE J-K SERIES

J	½"	$1.05
	¾"	1.33
K	½"	.79

Note.—Threadless Fittings for Rigid Conduit and Metallic Tubing (Thin Wall) are the same price.

Covers, Gaskets and Wiring Devices same price as Threaded, on page PL-11 and 12.

Fittings for Thin Wall Conduit are Only Made Up to and Including 2".

REDUCING BUSHINGS

Large End / Small End	¾"	1"	1¼"	1½"	2"
¾"	$0.38	$0.50	$0.67	$0.75	$0.99
1"	....	.57	.71	.84	1.12
1¼"	....	....	.76	.88	1.21
1½"	....	....	....	1.07	1.35
2"	....	....	....	....	1.43

FITTINGS, SPRAGULETS, WIRELETS OR T & B

BRANCH TYPE
Series 48

Description	G.E., Steel City or T & B Numbers	Price Each
Branch Body Rectangular for ½ & ¾" Conduit	SP-48241	$0.25
Cover Metal Flat Closed	SP-48C1	.10
" " " with ½" Knockout	SP-48C6	.10
" " " Pendant Type with ½ Bushing	SP-48C8	.12
" " " Pendant Type with ¾ Bushing	SP-48C11	.15
" " " with ½ Male or Female Nipple	SP-48C22 & 23	.30
" " " with ¾ Male or Female Nipple	SP-48C24 & 25	.40
Cover Porcelain with one or two wire Holes	SP-48C75 & 76	.14
" " " three or four wire Holes	SP-48C77 & 78	.15

SHALLOW TYPE
Series 14

Description	G.E., Steel City or T & B Numbers	Price Each
Body Octagonal Shape for ½" or ¾" Conduit	SP-14241	$0.35
Cover Metal Flat Closed	SP-14C1	.10
" " Raised with ½" Knockout	SP-14C7	.10
Cover Metal Flat Pendant with ½ Bushing	SP-14C8	.12
" " " " " ¾ "	SP-14C11	.16
" " " with ½ or ¾ Male Nip	SP-14C22-24	.30
" " " For all surface Mounted Devices	SP-14C28	.15
" " Raised for Sign Receptacles	SP-14C31-34-35-36	.12
" " Flat for all Fluted Devices	SP-14C39	.35
" Porcelain with one or two holes	SP-14C75 & 76	.15
" " " Three or Four holes	SP-14C77 & 78	.15

DEEP TYPE
Series 34

Description	G. E., Steel City or T & B Numbers	Price Each
Body Deep Octagonal Shape ½" & ¾"	SP-34461	$0.45
Cover Metal Blank Flat	SP-34R1	.14
Cover Metal For Push Button Switch	SP-34R2 & 3	.14
" " " Single Receptacle	SP-34R5	.14
" " " Standard Duplex Receptacle	SP-34R7	.14
" " For GE 30 Amp. Polarized Plug Recep.	SP-34R13	.16
" " GE Tumbler Switches	SP-34R14	.14
" " Hubbell and H&H Tumbler Switches	SP-34R15	.18

COUPLINGS

	Price
SP-1410 Complete Coupling for ½" Conduit	$.15
SP-1420 " " ¾" "	.25

FITTINGS, ENTRANCE OR SERVICE

"ADAPTI"

	½"	¾"	1"	1¼"
Ent. Ells with Cov. Ser. 1100	$0.35	$0.40	$0.50	$0.85
" Fitt. with Cov. Ser. 2700	.40	.45	.60	.75
Angle Ent. Fitt. with Cover Ser. 2700	.45	.50	.60	.95
Signal Ent. Caps No. 2810-2811	.75	.80	.....	.....
	1½"	2"	2½"	3"
Ent. Ells with Cov. Ser. 1100	$1.50	$3.00	.....	.....
" Fitt. with Cov. Ser. 2700	1.70	2.95	$5.95	$7.60
Angle Ent. Fitt. with Cov. Ser. 2700	1.80	3.00	6.35	7.20
Signal Ent. Caps No. 2810-2811	.....	.....	.....	.....

These prices apply only to the United States

FITTINGS, ENTRANCE OR SERVICE—Continued

"APPLETON"

	½"	¾"	1"	1¼"
FEB Elbow with Cov. 1700 & 1900	$.30	$.35	$.40	$ .65
FB Elbow with Cov. 1713 to 16	.35	.50	.60	.....
FC End Fitt. with Cov. 1723-33-43	.20	.25	.30	.....
AY Angle Fitt. 1950 to 54	.50	.55	.70	1.85
LAY End Fitt. with Cov. 1790 to 94	.30	.35	.45	.80
MF Reversible Fitt. 3200-3230	.45	.55	.75	1.30

	1½"	2"	2½"	3"
FEB Elbow with Cov. 1700 & 1900	$1.90	$3.25	$7.50	$9.00
FB Elbow with Cov. 1713 to 16	.....	.....	.....	.....
FC End Fitt. with Cov. 1723-33-43	.....	.....	.....	.....
AY Angle Fitt. 1950 to 54	2.25	.....	.....	.....
LAY End Fitt. with Cov. 1790 to 94	1.40	.....	.....	.....

"BEND HICKS"

	½"	¾"	1"	1¼"
Bend Hicks Galvanized	$.50	$.60	$.65	$1.75

	1½"	2"	2½"	3"
Bend Hicks Galvanized	$2.15	$4.10	$6.60	$8.25

"CAP-SWIVEL-LET"

	½"	¾"	1"	1¼"	1½"	2"
"A" Inside Work #1010 to 1064	$0.20	$0.25	$0.30	$0.55	$0.85	$1.30
"BW" Threadless Fitt. 4112-4134	.45	.50	.75	....	....	....
"BW" Threaded Fitt. 2112-2124	.35	.45	....	....	....	....
"FW" Outside Work 1412-1464	.40	.50	.65	1.05	1.80	3.00
"LB" Service Entrance 3110-3130	.50	.55	.65	....	....	....

Type "AM" for Nipple ½" Long $0.20 For Nipple 1½" Long $0.25
Type "BXA" from 1600 to 1613 .20 From 1614-1624 .30
From 1632-1634 .35

"CONDULETS"—Form 6

	½"	¾"	1"	1¼"
F Type Ent. Fitt. with Porc. Cov.	$.30	$.35	$.45	$.70
LB Type Ent. Fitt. with Metal Cov.	.35	.40	.45	.90

	1½"	2"	2½"	3"
F Type Ent. Fitt. with Porc. Cov.	$1.70	$2.95	.....	.....
LB Type Ent. Fitt. with Metal Cov.	1.55	4.10	.....	.....

"ELECTROLETS"

	½"	¾"	1"	1¼"
FB Angle Fitt. with Cov. 713-83	$.40	$.45	$.50	$.80
KA End Fitt. with Cov. 1013 to 43	.15	.20	.25	.35
SLB Elbow Fitt. with Cov. 1 to 4	.40	.45	.50	.90
Y Capped Elbow Y1 to 5	.40	.50	.60	1.65

	1½"	2"	2½"	3"
FB Angle Fitt. with Cov. 713-83	$1.90	$3.00	$6.60	$8.50
KA End Fitt. with Cov. 1013 to 43	.....	.....	.....	.....
SLB Elbow Fitt. with Cov. 1 to 4	.....	.....	.....	.....
Y Capped Elbow Y1 to 5	.....	.....	.....	.....

"GENERAL ELECTRIC"

With Covers		½"	¾"	1"	1¼"
Ent. Caps Series	1525 to 1534	$ .35	$ .40	$ .50	$ .80
Capped Elbow Series	1470 to 1472	.40	.50	.60	.....
Capped Elbow Series	1483 to 1484	.....	.....	.....	1.65
Insulets Series	1610 to 1612	.20	.25	.30	.....
Insulets Angle Series	1640 to 1642	.30	.40	.50	.....
Entrance Ells	1490 to 1495	.40	.45	.55	1.00

With Covers		1½"	2"	2½"	3"
Ent. Caps Series	1525 to 1532	$1.75	$2.95	$6.60	$8.45
Capped Elbow Series	1470 to 1472	.....	.....	.....	.....
Capped Elbow Series	1483 to 1484	2.05	.....	.....	.....
Insulets Series	1610 to 1612	.....	.....	.....	.....
Insulets Angle Series	1640 to 1642	.....	.....	.....	.....
Entrance Ells	1490 to 1495	1.35	3.00	8.35	10.50

GEE-VEE

		½"	¾"	1"	1¼"
F Service Cap Series	6000	$.35	$.40	$.50	$ .75
B " " "	16000	.45	.50	.70	1.75
F Pipe " "	1000-1310	.40	.50	.75	.85
B " " "	2000 & 2100	.40	.45	.65	.75
FB Universal "	3000	1.00	1.25	1.65	2.75
Weathercap "	40122	.30	.30	.....	.....
Service Elbow "	19000	.40	.45	.50	.95
Endo Terminal Series	90000	.15	.20	.25	1.05
Endo with Male Thread Series	70000	.25	.35	.50	....
Endo for Armored Cable	31143	.....	.....	.....	.....
No. 14-2 or No. 12-3 Wire		.20	.....	.....	.....

Endo for Armored Cable
Series 30000. Nos. 14 and 12 wire, $.15; No. 10 wire, $.30; No. 6 wire, $.45
SEG Service Elbow Series. .400-¾x¾x½", $.70; 1x1x½", $1.15; 1¼x1¼x½" 1.75

		1½"	2"	2½"	3"
F Service Cap Series	6000	$1.90	$3.35	$7.55	$9.20
B " " "	16000	1.90	3.35	7.60	9.25
F Pipe " "	1000-1310	1.20	1.75	3.00	4.15
B " " "	2000 & 2100	1.05	.....	.....	.....
FB Universal "	3000	3.75	5.40	9.50	12.70
Weathercap "	40122	.....	.....	.....	.....
Service Elbow "	19000	1.75	3.60	.....	.....
Endo Terminal "	90000	1.40	2.40	4.55	7.40

"TAPLETS"

	½"	¾"	1"	1¼"	1½"	2"	2½"	3"
AR End Fitt. with Bushing	$.40	$.55	$.70	$.90	$1.30	$1.70	$2.30	$5.60
BF Angle Fitt. with Covers	.35	.55	.65	1.20	....	....	....	....
FA End Fitt. with Covers	.15	.20	....	....	....	....	....	....
FB End Fitt with Covers	.30	.45	....	....	....	....	....	....
FF Service Fitt. with Covers	.35	.40	.50	.80	1.70	2.95	6.25	7.65
FH Service Fitt. with Covers	.85	1.05	1.50	1.90	3.05	4.90	11.50	12.65
SE Service Elbow with Covers	.95	1.10	1.25	1.90	2.50	4.20	8.45	9.80

"T & B" (Thomas & Betts)

Ent. Cap 1525-32 with Cover	$0.30	$0.35	$0.45	$0.70	$1.75	$3.35	$6.20	$9.20
Cap. Elbow 1480-84 with "	.45	.50	.60	1.70	2.25	....	....	....
Ent. " 1490-97 " "	.40	.45	.55	1.00	1.75	3.00	6.95	8.75
Insulets 1610-11-12 " "	.15	.20	.25	....	....	....	....	....
Angle Insulets 1640-1-2 with Cover	.30	.45	.60	....	....	....	....	....
Cable " 2000 with Cover	.15	....	....	....	....	....	....	....
Ent. Caps No. 5525-28 for Thinwall	.50	.65	.80	1.25	....	....	....	....
" Ell No. 5490-95 " "	.80	.90	1.30	3.00	4.10	6.70	....	....

"V. V."

	½"	¾"	1"	1¼"	1½"	2"	2½"	3"
Type 2 Term. Fitt. with Cov.	$.60	$.80	$1.05	$1.65	$2.15	$3.85	....	....
Type 6 Term. Fitt. with Bush	.40	.55	.70	.90	1.30	1.70	$ 2.30	$ 5.60
Type 9 Term. Fitt. with Cov.	.70	1.05	1.40	2.80	4.20	7.00	12.65	15.45
F with Porc. Cover	.40	.45	.60	.95	1.60	2.75	6.95	8.55
FAB with Porc. Cover	.25	.40	.45	.85	1.15	2.35	3.80	5.35
FC Pipe End Porc. Cover	.15	.20	.25	....	....	....	....	....
FCBX with Cover	.15	....	....	....	....	....	....	....
FL with Cast Cover	.40	.55	.65	1.15	1.35	2.45	....	....
Y Bend Hick	.50	.60	.65	1.75	2.15	4.10	....	....

FITTINGS, "ADAPTI"

ROUND "ADAPTI" BOXES

Series Numbers		Style	½"	¾"	1"	1¼"	1½"	2"
No. 2900 to 2903	1	Back Outlet	$.40	$ .46	$ .60	$1.05	.....	.....
No. 3100 to 3105	"	Side "	.40	.46	.60	1.05	$1.80	$2.40
No. 3100T & 3101T Threadless	"	" "	.48	.55	....	.....	.....	.....
No. 3170 to 3175	"	" "	.46	.53	.66	1.15	1.85	2.45
No. 3200 to 3205	2	" "	.48	.55	.73	1.25	2.11	2.70
No. 3200T & 3201T Threadless	"	" "	.60	.67	....	.....	.....	.....
No. 3270 to 3275	"	" "	.60	.67	.93	1.40	2.25	2.85
No. 32170 to 32175	"	" "	.53	.60	.85	1.34	2.20	2.80
No. 3300 to 3305	3	" "	.64	.75	.98	1.60	2.65	3.00
No. 3300T to 3305T Threadless	"	" "	.80	.92	....	.....	.....	.....
No. 33170 to 33175	"	" "	.70	.82	1.05	1.70	2.70	3.05
No. 3400 to 3405	4	" "	.80	1.00	1.20	1.85	2.85	3.30
No. 3500 to 3705	2	" "	.53	.60	.73	1.40	2.25	3.30
No. 3800 to 3805	"	" "	.53	.60	.80	1.40	2.25	3.30
No. 3900 to 4105	3	" "	.80	.93	1.05	1.75	2.85	3.95
No. 4800 to 5005	4	" "	.93	1.05	1.32	1.90	3.50	4.65

PARTS For Above Boxes

Series No.	Description	½"	¾"	1"
500-501-502	Base Only	$ .27	$ .27	$ .54
500X-501X	Extension Ring	.27	.27	.40
501A	Base Concealed to Expd.	.66	.66	.66
0500	" with Tapped Boss	.33	.33	....
510 to 512	Base	.40	.40	.80
520 to 522	"	.27	.27	.52
30 to 35	Metal Side Plates	.14	.14	.20
40 to 42	Insulated Side Plates	.16	.16	.33
50 to 54	Armd. Flex, Side Plates	.33	.40	.53
60 to 65	Angle Outlet	.16	.22	.42
70 to 75	Elbow Outlet	.22	.29	.50
90 to 93	Connecting Outlet	.26	.....	.33
100 & 101	Straight for No. 500 Base	.16	.22	....
110 to 113	" " No. 501 "	.26	.33	.42
120 to 125	" " No. 502 "	.46	.53	.66
130 to 135	" " No. 503 "	1.05	1.32	1.60
140 to 145	" " No. 504 "	2.65	3.05	3.45
300 & 301	Threadless Outlet	.20	.25	....
310 & 311	" "	.33	.40	....

Series No.	Description	1¼"	1½"	2"
500-501-502	Base Only	$ .54	$1.08	$1.08
500X-501X	Extension Ring	.40	.....	.....
501A	Base Concealed to Expd.	.66	.....	.....
0500	" with Tapped Boss	.....	.....	.....
510 to 512	Base	.80	1.60	1.60
520 to 522	"	.52	1.08	1.08
30 to 35	Metal Side Plates	.20	.38	.38
40 to 42	Insulated Side Plates	.33	.66	.66
50 to 54	Armd. Flex. Side Plates	.66	.....	.....
60 to 65	Angle Outlet	.48	.92	1.05
70 to 75	Elbow Outlet	.55	1.00	1.12
90 to 93	Connecting Outlet	.....	.40	.46
100 & 101	Straight for No. 500 Base	.....	.....	.....
110 to 113	" " No. 501 "	.48	.....	.....
120 to 125	" " No. 502 "	.80	.92	1.05
130 to 135	" " No. 503 "	1.85	2.10	2.40
140 to 145	" " No. 504 "	3.85	4.25	4.65
300 & 301	Threadless Outlet	.....	.....	.....
310 & 311	" "	.....	.....	.....

These prices apply only to the United States

COVERS For Round Adapti Boxes

Numbers	Description	Price
1	Porcelain One Hole Cover	$.18
2	Metal For Devices	.30
3	Porcelain One Hole Cover	.30
4	Porcelain	.22
5 & 6	Porcelain with ½ Nipple	.37
7 & 8	" " ¾ "	.52
9 & 10	Malleable with ½ Nipple	.30
11 & 12	" " ¾ "	.37
13	Metal For Receptacle	.18
13-P	" With Plug "	.80
13-R	" " Screw "	.65
16	" For Surf. Sw.	.30
18 & 19	Cast Iron For Rec.	.22
19-P	" " With "	.85
20	Metal Cov. ½" K. O.	.12
26	" Self Adjusting	.58

NOTE: For "Adapti" Entrance Fittings See Page PL-13.

GROUNDING FITTINGS & DEVICES "GROUNDULET", ETC.

Appleton, Crouse Hinds—& Similar

Type GCA

Fitting No.				Price
GCA-12	For ½"	Conduit	Without Soldering Lug	$ .70
" -172	" "	"	with " "	.75

Type GCD

	With Angle Adjustment ½" One Strap	¾" Two Straps	1" Three Straps
GCD-12 Fitting without Lug	$ .80	.....	.....
GCD-172-22-32 with "	.85	$1.55	$2.50

Type GCE

	With Threaded Plug Terminal	
GCE-142	For ½" Conduit & ¾" Water Pipe without Lug	$ .80
GCE-242	" ¾" " " " " with Lug	.90
GCE-342	" 1" " " " " with Lug	1.05

CONDUIT END TERMINAL Without Bolt or Soldering Lugs

GCE1	For ½" Conduit	$0.40
GCE2	" ¾" "	.55
GCE3	" 1" "	.70

Type GC

For Open Ground Wire

GC 91	Cast Brass with No. 4 Lug and One Strap—½ to 1" Water Pipe	$ .70
GC-92	Cast Brass with No. 4 Lug & One Strap ½ to 2" Water Pipe	.75
GC-922	" " " " 00 Lug & Two Straps " " 2" " "	1.45

WATER METER SHUNTS

GC191	Water Meter Shunt For ½ to 1" Water Pipe	$1.75
GC192	" " " " ½ to 2" " "	1.80

GC BRASS BUSHINGS For Groundulet Fittings

Size	½"	¾"	1"	1¼"	1½"	2"	2½"	3"
Without Screw or Lug.	$.10	$.13	$.20	$.24	$.31	$.46	$ .84	$1.10
With Screw & Lug....	.20	.24	.13	.32	.40	.61	1.00	1.25

G. E. & T. & B. GROUND FITTINGS

G. E.	T. & B.	Description	Price
SP-800-05	3670-80	½" Body Saws ½" to 2"	$0.90
SP-810-15	3671-81	¾" " " ½" to 2"	1.60
SP-820-25	3672-82	1" " " ½" to 2"	2.50

GROUNDING WEDGES

SP-900 to	3650 to	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"
911	3659	15c	20c	24c	26c	30c	45c	90c	$1.10	$2.00	$2.25

GROUNDING JUMPERS

SP-600	8" Grounding Jumper	$0.45
SP-601	12" " "	.55

FITTINGS OR BOX CONNECTORS, ARMORED CABLE

For BX or Armored Cable Description		Size of K. O.	Price Each
Standard Squeeze Connector ⅜-½		½"	$ .05
" Set Screw Connector ⅜-½		½"	.06
" Slip In Connector ⅜-½		½"	.06
" Duplex Connector ⅜-½		½"	.18
STRAIGHT BOX CONNECTORS	Squeeze or Tangent Type	½"	.15
		¾"	.18
		1"	.25
		1¼"	.35
		1½"	.55
		2"	.65
			1.00
90 DEGREE ANGLE BOX CONNECTOR	Squeeze or Tangent Type	½"	.25
		¾"	.30
		1"	.65
		1¼"	.90
		1½"	1.10

FITTINGS OR BOX CONNECTORS, ARMORED CABLE—Continued

45 DEGREE ANGLE BOX CONNECTOR	Squeeze or Tangent Type	½"	.25
		¾"	.35
		1"	.75
		1¼"	1.00
		1½"	1.35
PANEL BOX ADAPTOR FOR CONVERTING ANY CONNECTOR INTO A PANEL CONNECTOR		½"	.35
		¾"	.40
		1"	.65
		1¼"	.80
		1½"	1.10
		2"	1.65
		2½"	2.20
COUPLINGS FOR FLEXIBLE STEEL CONDUIT	For ½" Conduit		.36
	" ¾" "		.40
	" 1" "		.45
	" 1¼" "		.60
	" 1½" "		.75
	" 2" "		1.00
	" 2½" "		1.25
	" 3" "		1.60
COUPLINGS FOR RIGID TO FLEXIBLE CONDUIT	For ½" Conduit		.40
	" ¾" "		.45
	" 1" "		.50
	" 1¼" "		.70
	" 1½" "		.90
	" 2" "		1.35
Bushings or Ferrules—Brass			.02

FITTINGS FOR "OVALFLEX" ARMORED CABLE

Number	Description	Price
2150-57-60-61	Straps—Fasteners & Bushings	$.02
2159	Toggle with Wire Loop	.03
2176-2180-2154	Set Screw Connector	.15
2179-2181	Special Box Connector	.10
2155-2156	90 Degree Box Connector	.31
412-413	Connector for Ovalflex to Metal Molding	.35
9050-S	Squeeze Connector	.10

COMMERCIAL GLASSWARE

Standard

Fitters NOT INCLUDED Diameter or Width	Depth or Length	Plain White Only Size Fitter	Price
6" Diameter	5⅝ Inches to 6 Inches	3¼"	$ 1.00
8" Diameter	5¾ " " 6½ "	4"	1.25
9" "	5⅞ " " 7¼ "	4"	1.35
10" "	6 " " 8⅛ "	4"	1.75
12" "	6½ " " 8½ "	4" or 6"	3.25
14" "	7½ " " 10½ "	6"	4.50
16" "	8⅝ " " 11½ "	6"	5.25
18" "	9 " " 12 "	6"	8.25
20" "	10 " " 10½ "	8"	15.00

Modernistic Glassware

Fitters NOT INCLUDED		Plain White Only	
8" Diameter	6½ Inches	4"	$ 1.40
9" "	7¼ "	4"	1.75
10" "	8 "	4"	2.50
12" "	8½ & 9 "	6"	3.75
14" "	9½ & 11 "	6"	5.25
16" "	10 and 12½ "	6"	6.75

Ball Globes

		Opal or C. R. I.
6" Diameter	6 Inches Deep ..... 3½"	$ 0.60
7" "	7 " " ..... 3½"	.80
8" "	8 " " ..... 3½" &4"	1.20
10" "	10 " " ..... 4"-5"-6"	2.20
12" "	12 " " ..... 5"-6"-7"-8"	3.50
14" "	14 " " ..... 6"-7"-8"	5.25
16" "	16 " " ..... 6"-7"-8"-9"	7.50

Miscellaneous Glassware

Half Shades	4½"	Diam.	6"	Deep	2¼"	Fitter		$0.75
Mission Bell Shades	4½"	"	4½"	"	2¼"	"	.....	.50
" " "	6"	"	4"	"	2¼"	"	.....	.60
" " "	7"	"	5"	"	2¼"	"	.....	.80
" " "	8"	"	5"	"	2¼"	"	.....	1.25

LAMP GUARDS

Loxon

1 Key with each dozen Guards—Extra Keys 10c each

Lamp Size	Fits Socket	McGill Loxon Nos.	Price Each
15-25-40 Watt	Brass or W. P.	1420-1420A-1420B	$0.60
50-60 Watt	Brass or W. P.	1425-1427A-1427B	.60
100 Watt	Brass or W. P.	1426-1428A-1428B	.60
150 Watt	Brass	2443	.80
200 Watt	Brass or W. P.	2444-2446A-2446B	.85
200 Old Style	Brass	2447	.95
200 Old Style	Weatherproof	2447A-2447B	1.00

These prices apply only to the United States

Hubbell
Non-Locking Type

	15-25-40-60 Watt No.	Price	75 Watt No.	Price
Closed Bottom Top & Collar for Brass Socket	5573	$0.50	5578	$0.50
Open Bottom with Collar for Brass Socket	5485	.35	....	....
Open Bottom No Top or Collar for Brass Socket	5691	.30	5692	.35
Open or Weatherproof Socket	5693	.30	5694	.35
Closed Bottom Top & Collar with Reflector	5766	.60	....	....
Open Bottom No Top or Collar Mill Type	6995-6	.35	....	....

HANGERS

FOR CABLE & CONDUIT
Minerallac

Hangers Mfgs. No.	Conduit Size	Lead Covered Cable Size	Price Jap Fin.	Price Glv. Fin.	Porcelain Bushings Mfgs. No.	For RC Cable	Price
0	½"	No. 14	$.06	$.08	1	8-2-0	$.09
1	¾-¾	No. 1 to 4/0	.07	.10	2	3-0-4-0	.10
2	1	4/0 to 300 M	.10	.11	3	250M-450M	.11
3	1¼	500 to 750 M	.10	.11	4	500M-700M	.13
4	1½	800 to 1125M	.11	.14	5	750M-1000M	.14
5	2	1500 M	.12	.15	6	1125-2500M	.20
6	2½	2000 M	.15	.16			

T & B ADJUSTABLE HANGERS
For Thin Wall Conduit — Price Each

Type A Clamp Including Bolts Fits Flange 2¼ to 7¾"	$.45
Type B & C Clamp Including Bolts Fits Flange 7 to 12"	.70
Special Bolts	.10

For Complete Hanger Add Supports Below to Above Prices.

Supports for above Hangers

	½"	¾"	1"	1¼"	1½"	2"	2½"	3"
For One Conduit Steel	$.12	$.15	$.25	$.30	$.35	$.50	$.60	$.75
" Two Conduit Mall.	.18	.20	.30	.35	.45	....	....	....
" Four Conduit Mall.	.28	.35	....	....	....	....	....	....

HANGERS & PERFORATED BAR
Grabler and Paine
Perforated or Extension Bar

For ½ to 1½ Conduit Per Foot	$.08
" 2 to 3" " " "	.10
" 3½ to 6" " " "	.12

Paine Adjustable Pipe Hangers

	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"
Hanger Ring, Perforated Hanger Iron, and Flat Head Lag Screw	$.10	$.10	$.15	$.15	$.20	$.20	$.25	$.25

Grabler Hangers

No.		½"	¾"	1"	1¼"
1	Hinge Hanger with Extn. Bar & Lag Screw	$.18	$.18	$.20	$.22
5	Band Hanger Extn. Bar and Lag Screw	.10	.10	.15	.15
13	Hinge Hanger, Socket and Beam Clamp	.34	.34	.37	.38
200	Band Hanger Only	.10	.10	.12	.13

No.		1½"	2"	2½"	3"
1	Hinge Hanger with Extn. Bar & Lag Screw	$.25	$.27	$.30	$.34
5	Band Hanger Extn. Bar and Beam Clamp	.20	.30	.30	.35
13	Hinge Hanger, Socket and Beam Clamp	.40	.47	.48	.50
200	Band Hanger Only	.14	.16	.18	.20

STANDARD SHADE HOLDERS

2¼" Uno with Screws	$0.10	2¼" W.P. with Screws	$0.20
2¼" " " Spring	.15	3¼" " "	.35
Form H with Screws	.30	4" " "	.60
" " " Spring	.35	2¼" Contractile Collar	.10
3¼" " " Screws	.30	3¼" " "	.30
4" " " "	.40	4" " "	.45
4" " " "	.50		

KNOBS, TUBES & CLEATS, PORCELAIN

KNOBS

Type	Price Each With Screw	With Nail	Without Screws
No. 1 Nailit Knob		.02½	
No. 5½ Split Knobs	$.02½		$.02
5½ Solid Knobs	.03		.02½
5½ Screwit "	.04		
4 & 4½ Knobs Solid	.04½		.04
No. 9419 Split 1½x1¼			.05
9420 Split 2x2¼			.12
22 Victor Split			.10
6061 Solid Teleph. 2 Groove			.05
6062 " 4 "			.07

TUBES

Diam.	Price Each	3" & under	4'	5'	Length 6'	8'	10'	12'	14'	16'
½"	" "	$.01	$.01½	$.02	$.02½	$.03	$.17	$.25	$.32	$.40
⅝"	" "		.01½	.02½	.03	.03½	.09	.19	.27	.35	.43
¾"	" "		.04	.05	.06	.07	.13	.21	.30	.38	.47
⅞"	" "		.07	.08	.09	.11	.15	.25	.34	.43	.52
1"	" "		.10	.12	.13	.15	.18	.29	.39	.49	.59

CLEATS
2 & 3 Wire

Standard No. 334 2 & 3 Wire Unglazed Cleats without Screws Per Pair	$.04
" " " " " Glazed " " " " "	.06

ONE WIRE CLEATS
B & D Type—2 Piece Porcelain

No.	Dimensions Height	Length	Width	For Size Wire	Price Each
1A	¾	1¾	⅝	14 to 6	$.04
1½A	⅞	2¾	⅝	6 " 2	.06
2A	⅞	2¾	1⅛	2 " 0	.08
2½A	⅞	2¾	1⅛	0 " 000	.10
3A	⅞	3¼	1¼	000 " 200,000 CM	.12
3B	⅞	3¼	1¼	000 " 200,000 CM	.13
3½B	⅞	3½	1¼	2 " 500,000 CM	.14
4B	⅞	3¾	1½	5 " 1,000,000 CM	.18
4¼B	⅞	5	1½	8 " 1,250,000 CM	.25

LOOM & L-SUNDRIES

LOOM, NON-METALLIC CONDUIT

Size	⅛"	¼"	⅜"	½"	¾"	¾"	1"
Price per Foot	$.04	$.04½	$.09	$.12	$.16	$.19	$.32

Clips for Loom 2c Each or 3 for 5c

SOLDERING LUGS—One Hole
Sherman-Trumbull or similar

For Wire Size	Amps.	Size Wire Hole	Price Each	For Wire Size	Amps.	Size Wire Hole	Price Each
No. 10 Under	25	⅛"	$ .03	0000	225	11/32"	$0 18
8	35	¼"	.03	250 M. C. M.	237	11/32"	.31
6	50	¼"	.04	400 M. C. M.	325	11/32"	.46
4	70	¼"	.05	450 M. C. M.	362	1"	.55
2	90	¼"	.06	500 M. C. M.	400	1¼"	.66
0	125	¼"	.08	600 M. C. M.	450	1¼"	.70
00	150	¼"	.10	800 M. C. M.	550	1¼"	.85
000	175	¼"	.16	1000 M. C. M.	650	1¼"	1.00

For 2-Hole Lugs
With Regular Stud Holes Add 50% To Above Prices.

LINKS—For Chain

	Price
Non-Insulating Splicing Links—Any Make—Each	$.05
Insulating	.18

Luminous Acorns—See Page PL-4 and Page PL-18.

MAIL BOXES

COUCH
No. 73 Tilting Mail Boxes Post Office approved per Receptacle $3.30

"TILTING" Speaking Tube Type
Series 7303 to 7309 and 73010 to 73012

No. of Boxes	3	4	5	6	7	8	9	10	11	12
Price ea.	12.90	17.20	21.50	25.75	30.00	34.35	38.60	43.00	47.20	51.50

SINGLE GANG Non-Tilting
No. 78 or 780 with call button or speaking tube unit ..... Price each $3.15

MOLDING, NATIONAL

MOLDING

		Price
022	One Piece Metal Molding for Two Wires ½" Wide—Per Foot	$.10
044	" " " " " Two to Four 1" " " "	.12
222	Two " " " " Two Wires ½" " " "	.11
333	" " " " " Two to Four 1" " " "	.12

FITTINGS

Number	Description	Price	Number	Description	Price
200-201	Bushing	$ .02	369X	Open Work Coup...	$ .40
223	Clip	.04	370	Blank Cover	.25
232	Coupling	.06	371-2-3	Porcelain Cover	.25
234	Cross	.45	376	Corner Box	.45
235	Tee	.23	377	Adaptor	.10
236	90 Deg. Elbow	.20	392	Snap Switch	.90
237	45 " "	.20	397	Key Socket 2¼" Base	.75
238-9	90 " "	.20			
278	Adaptor	.05	400	Base For Socket	.70
300	"	.06	400X	3" Recep. Base	.70
302	"	.04	401	Box Connector	.22
315	Connector	.40	406	Combination Fitting	.25
316	90 Deg. Coupling	.30	407	Utility Box	.35
317	90 " Connector	.30	412	Connector	.24
319-20	Take-Off Tee	.22	413	"	.26
321A-B	Rawl Plug	.06	414-S	"	.24
323	Joint Cap	.05	419A-B-C	Toggle Bolt	.10
331	Wire Clip	.03	420A-B-C	Spring Toggle Bolt	.09
334	Cross	.35	421	Lead Shield	.10
335	Tee	.22	425A	Folding Strap	.02
336	90 Deg. Elbow	.15	426	Susp. Strap 2 Line	.06
337	90 " Ext. Elbow	.15	427	" " 3 "	.08
337B	Cap for Elbow	.15	428A	Folding Strap	.04
338	90 Deg. Int. Elbow	.15	430	Fixture Rosette	.65
338B	Cap for Int. Elbow	.15	434	Single Strap	.06
339X	2½ Comb. Plate	.17	435	Double Strap	.08
340X	Terminal Block	.30	436	Coupling	.06
341	Junction Box	.45	437	45 Deg. Elbow	.20
342	3" 10 Amp. Box	.45	438	Sgle. Flush Box	1.00
343	2½" 5 Amp. Box	.45	439	" Surface Box	.70
344	Base Coupling	.08	439X	One Gang Box	.62
344X	Coupling	.04	439D	" " "	.70
345	Single Strap	.06	439S	Sgle. Surface Box	.75
348	Cord Rosette	.38	440	Two Gang Surface Box	1.15
348X	3" Cord Rosette	.38			
354	Double Strap	.04	440D	Two Gang Box	1.10
355	Ground Clamp	.12	440X	" " "	1.05
356-7	Keyless Recep	.60		Single Plates 447-48-50-51-61-91	.15
356X	3" Recep. Base	.80			
360	Conven. Outlet	.80		Two Gang Plates 452-62-92	.30
360X	3" Plug Recep. 660W	.95			
363	4½" Split Base	.35		Three Gang Plates 453-63-93	.40
363A-B	4½" Cover Closed	.30			
365	4½" Canopy Base	.60	441	Single Adaptor	.65
365A	4½" " " & Stud	.65	442	Two Gang Adaptor	1.15
			500	Bushing	.04
365X	4" Comb. Plate	.15	2155-6	90 Deg. Connector	.35
366	6" Canopy Base	.85	2180	Straight Box "	.24

OVALDUCT
3 Wire ..... Per Foot $.17

These prices apply only to the United States

OVALDUCT FITTINGS

No.	Description	Price Each
24-CQ	Extension box cover for 4" outlet boxes	$.45
401	Box Connector with ½" Bondnut	.25
2133	Squeeze Type Coupling 1¾" long	.15
2134	90 Degree Internal Elbow	.35
2135	45 " Flat "	.26
2136	One piece 90 degree elbow	.60
2156	90 " Box Connector	.30
2159	Wire Toggle Fastener	.03
2161	Strap Fastener	.02
2181	Connector Ovalduct to Oval Knockout	.10
2662	Outlet Box 4 x ½	.20
2663	Extension Ring for Boxes	.20
2665	Outlet Box 4 x ¾ with Fixture Stud	.28
2862	" " 3¼ x ¾	.20
2865	" " 3¼ x ¾ with Fixture Stud	.26
4170-S1	Sectional Switch Box 4 x 1 11/16 x 1	.35
4172-S1	Spacer for above box	.30

MOLDING, WIREMOLD

MOLDING

No. 500	2-Wire, price per ft.	$.10
" 700	4-Wire, " " "	.12
" 1000	Master Size, " " "	.23

FITTINGS FOR No. 500 2 Wire

Number	Description	Price
502	Bushing	$0.04
504	Supporting Strap	.03
506	Connecting Cover	.03
511-12	45 & 90 Deg. Elbows	.23
515	Tee Plain	.26
516	Cross Plain	.36
517	Internal Elbow	.20
518	External "	.20
519	Corner Box	.45
521	1 Piece Rosette	.33
523	¼" Fixture Rosette	.75
524	⅜" " "	.60
525	Receptacle Base	.75
526	Keyless Receptacle	.85
527	Attachment Plug	.90
532-23	2½&3" Outlet Box	.45
588	Operwork Coupling	.36
599	Moulding Connector	.05

FITTINGS FOR No. 700 4 Wire

5701	Coupling	$0.03
702	Bushing	.04
5703	Clip	.04
704	1 & 2 Hole Strap	.04
706	Connection Cover	.03
5707	Multiple Strap	.05
5708	Fixture Hook	.20
5709	Ground Clamp	.11
5711-12	Elbows 45 & 90 Deg.	.20
5715	Tee	.30
5717	Internal Elbow	.24
5717A	Elbow Pull Box	.50
5718	External Elbow	.22
5719	Corner Box	.50
5720	Narrow Fitting	.50
5720A	Show Case Outlet	.55
5721	1 Piece Rosette	.33
5724	Comb. "	.65
5725	Receptacle Base	.75
5726	Keyless Receptacle	.85
5727	Plug Receptacle	.95
5728	Utility Box	.45
5729	" Cond. Type.	.45
5730	Contact Block	.20
5731	Blank Cover	.12
5732-3	2½"&3" Outlet Box	.40
5734	Closed Extension "	.65
5735	Distribution Box	.70
5736	Blank Cover	.15
5737	4¼" Extension Box	.60
5738	4¼" Fixture Box	.55
5738D	Diple Thru Hook Conn.	1.45
5738E	Stamped Hook Canopy	.60
5739	6¾" Fixture Box	.90
5739A	6¾" Extension "	.95

FITTINGS FOR No. 700 4 Wire—Continued

Number	Description	Price
5741	Switch Box	$0.60
5742	Junction Box	.70
5743	Duplex Receptacle	1.15
5744	Single Deep Box	.85
5744-2	2 Gang "	1.40
5745	Combination "	.60
5747	Single Shallow Box	.60
5747-2	2 Gang " "	1.05
5747-3	3 " " "	1.30
5748	Single Surface "	.65
5748-2	2 Gang " "	1.05
5748-3	3 " " "	1.45
5748S	Shallow " Rec. "	.70
5749	Switch & Recep. "	1.00
5750	Push Switch Box	1.05
5751	Single Adp. Plate	.70
5752	2 Gang " "	1.15
5753	3 " " "	1.50
5760	Blank Extension Box	.90
5780	Chase Nipple	.15
5781&A	½&¾ Box Connector	.30
5782&A	½&¾ Pipe Coupling	.35
5783	½" Elbow Box Conn.	.35
5784	½" " Pipe Coupl.	.35
5785	Comb. Connector	.30
5786	Adj. Offset Conn.	.50
5787	Kick Plate	.25
5788	Openwork Connector	.35

FITTINGS FOR No. 1000 MASTER SIZE

1001	Coupling	$0.06
1002	Bushing	.04
1003	Clip	.06
1004	Two Hole Strap	.08
1005	One Hole Srtap	.08
1008	Hanger Assembly	.90
1008A	Hanger Clamp	.18
1009	Ground	.20
1011	90 Deg. Flat Elbow	.40
1013	Adj. Elbow	.40
1017	Internal Elbow	.40
1018	External "	.35
1020	Keyless Receptacle	.90
1020A	Angle "	1.40
1020B	Blank or Outlet Box	.50
1028	Utility Box	.70
1035	Distributuon Box	1.10
1039	6¾" Fixture "	.90
1048	Switch & Recp Box	1.00
1082	Pipe Coupling	.60
1085	Comb. Connector	.35
1086	Offset Connector	.70
1087	Kick Plate	.32
1089	Reducing Connector	.15
1000F	Flex. Fitting 18"	1.75

LEWIS METER AND SWITCH CABINETS

Amp.	Volts	Wire	Fuse	Neutral	MAIN FUSE ACCESSIBLE Numbers	Price
CLASS A						
30	125-250	3	2	Solid	M7311-ML7311	$12.30
30	125-250	3	2	"	M7311M-ML7311M	12.80
30	125	2	1	"	M7211-ML7211	12.20
30	125	2	1	"	M7211M-ML7211M	12.30
30	125	2	2	Fused	M7211D-ML7211D	12.95
60	125-250	3	2	Solid	M7312-ML7312	19.75
60	125-250	3	2	"	M7312M-ML7312M	19.05
60	125	2	1	"	M7212-ML7212	19.30
60	125	2	1	"	M7212M-ML7212M	19.05
60	125	2	2	Fused	M7212D-ML7212D	19.30
CLASS B					SEALED MAIN FUSES	
30	125	2	1	Solid	M5211 or ML5211	$12.30
30	125-250	3	2	"	M5311 " ML5311	12.80
30	125	2	2	Fused	M 211 " ML 211	12.20
30	125-250	3	2	Unfused	M 311 " ML 311	12.30
30	250	2	2	Fused	M 221 " ML 221	12.95
60	250	2	2	"	M 222 " ML 222	15.30
30	125-250	3	2	Unfused	M 321 " ML 321	12.70
30	125-250	3	2	Solid	M 321SN or ML 321SN	12.70
60	125-250	3	2	"	M 322 or ML 322	15.30

"METER TEST TYPE" CABINETS

30 Amps	Cat. No. M303 or ML303	$6.25
60 Amps	Cat. No. M602 or ML602	7.30

N-SUNDRIES

PIPE NIPPLES

Size Conduit	½" Cond.	¾" Cond.	1" Cond.	1¼" Cond.	1½" Cond.	2" Cond.	2½" Cond.	3" Cond.
	$0.07	$0.08	$0.12	$0.16	$0.20	$0.24	....	....
Length Conduit	Close Nipples—Galv. Standard Short Nipples—Black or Galv.							
2" to 3½" Long	$0.10	....	....	....	....	....	....	....
2" " 4" "	....	$0.12	$0.15	....	....	....	....	....
2½" " 4½" "	....	....	....	$0.21	$0.21	....	....	....
3" " 4½" "	....	....	....	....	....	$0.35	....	....
3" " 5½" "	....	....	....	....	....	....	$0.70	....
3½" " 5½" "	....	....	....	....	....	....	....	$0.85
Length Conduit	Long Nipples—Black or Galv.							
4" Long	$0.10	....	....	....	....	....	....	....
5" "	.14	$0.14	$0.20	$0.24	$0.30	$0.38	....	....
6" "	.15	.17	.22	.28	.34	.40	$0.80	$1.00
7" "	.18	.21	.27	.34	.40	.55	1.05	1.25
8" "	.21	.23	.30	.37	.45	.60	1.12	1.40
9" "	.22	.25	.33	.40	.50	.67	1.22	1.55
10" "	.24	.27	.37	.40	.56	.75	1.35	1.65
11" "	.30	.35	.45	.58	.70	.95	1.45	1.80
12" "	.30	.38	.48	.61	.75	1.00	1.55	1.95

CHASE NIPPLES & COUPLINGS

Size	¼"	¾"	½"	¾"	1"	1¼"	1½"	2"	2½"	3"
Chase Nipples...each	$.10	$.10	$.10	$.14	$.25	$.28	$.32	$.50	$.70	$1.10
" Couplings "	.12	.12	.12	.14	....	....	....	....	....	....

For Erickson Couplings, see Page PL-8.

CHASE MALE REDUCERS AND FEMALE ENLARGERS T & B or Similar

¾ to ½" Reducer, each	$.20	½ to ¾" Enlargers, each	$.20
1 " ¾" " "	.25	¾ " 1" " "	.25
1¼ " 1" " "	.45	1 " 1¼" " "	.35
		1¼ " 1½" " "	.50

NAILS—Insulated

Millonite Insulated Nails, per dozen	$.05	Per Box of 100	$.40
Leather Nail Heads, " "	.05		.40
Staples Insulated, " "	.05		.40

PLUGS, ATTACHMENT

ATTACHMENT PLUGS COMPLETE

	Price
"Pony" Composition	$0.15
Standard "	.20
"Pony" Genuine "Bakelite"	.15
Polarized Standard Comp. Plug	.25
Large Size Double T Slot Comp.	.60
" " Porcelain	.50
Weatherproof One Piece Comp.	.50
Benjamin #903 Swivel Plug	.20
Pony Body Only $0.10 Standard Body $0.15 Large Body	$0.35

10 AMP.—CAPS ONLY—For Attachment Plugs

"Pony" Cap Composition	$0.10
"Standard" Cap "	.10
" " "Bakelite"	.10
Large Size Cap Composition	.30
Plug With Extension Knob	.15
Soft Rubber Cap	.25
"Standard" Cord Grip Cap	.30
" Steel Covered Cap	.20
" Brass " "	.50
" Steel " Cord Grip	.40
Disappearing Door Comp. Cap	1.15
" " Brass Cov. Cap	1.40
"Standard" Brass Cov. Finger Grip	.70
" "Knostrain" Comp. Cap	.50
" Brass Cov. Knostrain	.85
" Comp. Fusible Cap	.60
Polarized 2 Wire Comp.	.30
" 2 " Brass Cov. Cap	.55
" 2 " Steel " "	.20
" 2 " Cord Grip "	.40

20 AMP. CAPS—For Polarized Devices

2 Wire Brass Covered Cap	$0.90
3 " " " "	1.20
2 " Steel Covered Cord Grip Cap	1.10
3 " " " " "	1.25

30 & 40 AMP. CAPS—For Polarized Devices

30 Amp. 2 Wire Porcelain Cap	$1.85
30 " 2 " Steel Cov. Cord Grip	2.00
30 " 3 " Porcelain " "	1.85
30 " 3 " Steel Cov. " "	1.90
40 " 3 " Str. Cap Ground. C. G.	3.25
60 " 3 " Steel Cov. Cord Grip	3.00

Flasher Plugs

Diamond Flasher Button	$0.60	No. 125 Skeedoodle Plugs	$2.50
"Propp" #530 Flasher Button	.50	No. 164 " "	.60
"Rodale" 110 Volt " Plug	.50	No. 161 " "	.80
" 220 Volt " "	.65	No. 165 " "	.90

PLUGS, APPLIANCE

Make	No.	Description	Price
American Beauty	802	Plug Complete for Small Irons	$0.40
	806	" " Large "	1.25
	807	" " Toasters & Stoves	.20
Arrow & Hart & Hegeman	7762	Standard Size with Switch	.40
	7760	" " without "	.20
	7761	Pony " " "	.20
Beaver "Gripall" & "Suitzall"	F-1	"Gripall" Super-Type Adjustable Cont.	.45
	F-5	" " " Armored Casing	.55
	F-7	" " " Adj. Cont. Bakelite	.50
	F-22	"Suitzall" Heater Plug—Full Size	.20

These prices apply only to the United States

PLUGS, APPLIANCE, Continued

Beaver "Gripall" & "Suitzall"	F-31	Standard Heater Plug—Single Sided Cont.	$0.15
	F-32	Heater Plug Double Sided Contacts	.20
	F-33	Armored Casing (F-32 Type Armored)	.25
	F-34	Medium Heater Plug—Bakelite	.25
	F-36	Small Heater Plug—Black	.20
	G-1	"Gripall" Heater Switch Plug Adj. Cont.	.80
	G-2	"Gripall" Heater Switch Plug Nickle Alloy Contacts	.90
	G-21	Competitive Push Button Type	.45
	G-22	New Toggle Type	.45
Belden	1708	Aircool Heater Plug	1.00
Bryant	668	Universal Appliance Plug with Switch	.90
	669	Switchless " "	.50
	752	Appliance Plug with Indicating Switch	.60
	2966	Small Switchless Plug	.45
Cutler-Hammer	7051	Appliance Plug with Switch	.60
G. E.	2602	Armored Heater Plug No Switch	.25
	2633	Large Heater Plug " "	.20
	2642	Switch " " with "	.45
	2699	Small " " No "	.25
	2826	"Handy Pull" Heater Plug	.35
Hemco	H250	Switchless Appliance Plug Bakelite	.50
	H260	Switch " " "	.90
Hotpoint	CD6P1	Iron Plug No Switch	.45
	CD69P1	" " Armored	.60
	CD79P1	" " with "	1.00
Kool-Pull (Noark)	8037	Appliance Plug—No Switch	.75
	8039	" " with "	1.00
Propp	5	One 4-All Appliance Plug—No Switch	.30
	52	Iron Plug with Switch	.50
	55	Standard Iron Plug—No Switch	.20
	56	Armored " " "	.30
Reynolite	500	Heater Plug	.40
	510	Switch Heater Plug	.75
Rodale	P-21	Heater Plug No Switch Cold Molded	.15
	P-29	" " " Armored	.20
	450	F tsall Heater Plug—No Switch	.45
	610	Bakelite " " " Small	.20
	615	" Armored Heater Plug—No Switch	.30
	850	Iron Plug with Switch	.45
	800	" " " Armored	.65
Simplex	890	Armored Plug—No Switch	.75
	990	Deluxe Chromplate Plug	1.00
Sunbeam	A-85	Heater Plug	1.50
Torrid	B-0808	Automatic Heat Control Plug	1.00
	B-080	" Safety "	1.00
Waage	....	3 & 4 Heat Plug Only	.50
Westinghouse	299423	Appliance Plug—No Switch	.75
	373656	" " —With "	1.00

PANEL BOARDS OR FUSE CABINETS

FRANK ADAM

All 30 Amp.—S. P.—NEC Fuses	4 Branch	6 Branch	8 Branch	12 Branch
"FBX" Safety Type Fuse Boxes	$ 3.80	$ 5.60	.....	.....
"NR" " " Main Cable Lug Only	.....	.....	$ 8.90	$11.90
" " " Solid Neutral	11.15	13.40	15.60	.....
NR3G " " Main Cable Lug Only	.....	.....	16.50	19.80

BENJAMIN-STARRETT

All for Plug Fuses Cat. No.	Type and Description	4 Circt.	6 Circt.	8 Circt.	10 Circt.	12 Circt.
66104-12 NP	—One Fuse 3 Wire Serv	$ 5.20	$ 7.40	$ 8.90	$10.40	$11.90
66204-12 P	—Two Fuse 2 and 3 Wire Serv	7.50	11.15	13.35	15.60	18.60
66304-12 NEP	—One Fuse with Switch Pl	7.10	10.30	12.80	16.50	19.15
66404-12 EP	—Two Fuse with Switch Pl	10.30	15.25	19.15	21.80	25.15

BULLDOG FUSENTERS

No.	Description	2 Circt.	4 Circt.	6 Circt.	8 Circt.	10 Circt.	12 Circt.
CBS	Surface Black Finish with shield	$1.80	$2.30	$3.90	$7.00	$9.75	$10.30
BOS	" Black Finish without Shield	1.65	2.15	.....	.....	.....	.....
BF	Flush Luminized Finish	2.50	3.70	5.35	8.75	10.30	11.75
BBF	" Black Finish	2.00	2.75	4.70	.....	.....	.....
BSF	" Lum. Finish with Toggle Switches	.....	6.60	9.90	13.20	15.70	19.80
BSSF	" Lum. Finish with one 30 A. Saftofuse	.....	20.50	22.00	31.75	33.35	35.00
BSSF	" Lum. Finish with one 60 A. Saftofuse	.....	21.50	22.30	32.25	33.75	35.40
BKF	" Lum. Finish with Pull Box	.....	6.60	9.90	14.85	17.35	19.80

FUSE CABS—All-Steel-Equip. Co.

Style and No.	Description	2 Circ.	4 Circ.	6 Circ.	8 Circ.	12 Circ.
C702-4-6	Surf. Small Type Black	$1.50	$2.25	$3.55	.....	.....
C902-4-6	Flush " " "	1.50	2.25	3.55	.....	.....
D3008 & 12	Surf. Sgl or Two Fuse	.....	.....	.....	$5.95	$8.75
D3038 & 42	Flush " " " "	.....	.....	.....	5.95	8.75
DS4304-6-8-12	Surf. " " " "	.....	4.95	7.00	9.10	14.45
DS3304-6-8-12	Flush " " " "	.....	4.95	7.00	9.10	14.45

KILLARK

	2 Circt.	4 Circt.	6 Circt.	8 Circt.	10 Circt.	12 Circt.
Standard Flush Type Panels Series KRP—2 to 12 Inclusive	$2.00	$2.90	$4.75	$6.50	$8.50	$10.75

CUTLER-HAMMER—Fuse Panels—Flush Mounting

Circuits	2 Cir.	4 Cir.	6 Cir.
Black Finish Series 4355 H1 to 6	$ 1.90	$ 2.60	$ 4.65
Aluminum Finish Series 4355 H1 to 6	2.40	3.45	5.35
Circuits	**8 Cir.**	**10 Cir.**	**12 Cir.**
Black Finish Series 4355 H1 to 6	$ 8.20	$ 9.95	$10.20
Aluminum Finish Series 4355 H1 to 6	8.68	10.98	11.65

G. E. or TRUMBULL—Residence Panel Boards

	4 Circt.	6 Circt.	8 Circt.	10 Circt.	12 Circt.
Surface or Flush Mounting Single No 3104 to 3212 Flush Mtg. or Fusing 2906 to 2912 Surface Mtg.	$2.80	$ 4.55	$ 9.65	$11.25	$13.00
Double No. 3404 to 3412 Flush Mtg. or Fusing 2704 to 2712 Surface Mtg.	9.10	12.40	18.15	23.10	26.40

SQUARE D—Fuse Cabinets

	2 Circt.	4 Circt.	6 Circt.	8 Circt.	10 Circt.	12 Circt.
Series 37000 to 39000 Flush Series 37000 Black	$1.85	$2.50	$4.50	$7.90	$ 9.50	$11.15
" " 37000 Aluminum	2.35	3.35	5.10	8.30	10.00	11.15
Surface Series 39000 Black	1.85	2.50	4.50	7.90	9.50	11.15

NOTE: 2 & 4 Circuit Flush Type arranged for mounting direct to front side of studding with channels for lathe ends, each $0.20

Combination Fuse Cabinets

60 Amp. Fuse Break and 30 Amp. Circuits	60 Amp. Only	2 Circt.	4 Circt.	6 Circt.	8 Circt.
Flush Mounting Aluminum	$7.45	$12.40	$14.00	$14.85	$23.00
Surface " Black	6.45	10.75	11.55	12.40	20.65

WADSWORTH Fuse Cabinets & Panelboards

All Dead Front Single Fusing	2 Circt.	4 Circt.	6 Circt.	8 Circt.	10 Circt.	12 Circt.
Surface Mtg.	$2.30	$3.00	$4.85	$5.75	$7.55	$11.55
Flush Mtg Hanger Support	2.85	3.80	6.10	7.55	10.20	12.00
Flush Type for Tgle Sw		6.85	11.10	13.75	16.40	19.85
			16 Circt.	20 Circt.	24 Circt.	
Surface Mtg. Enc. Panel Boards 100 Amp. Mains			$22.00	$25.35	$32.00	
Flush " " " " " "			24.75	28.00	34.65	

WESTINGHOUSE Junior Residence Type

Junior Residence Panels	2 Circt.	3 Circt.	4 Circt.	6 Circt.	8 Circt	10 Circt.	12 Circt.
No. K-64012-21 & 64052-61	$2.50	$2.70	$3.75	$5.35	$8.75	$10.30	$11.70
Junior Building Panels for Toggle Switches No. K-64034-42 & 64074-81	.....	.....	6.60	9.90	13.20	15.70	19.80

PLATES & PLUGS, RECEPTACLE

PLATES—For Flush Receptacles

All Types	Composition	.040 Gauge Lacquer	.040 Gauge B. Brass	.060 Gauge Lacquer	.060 Gauge B. Brass
Single or Duplex Plate	$0.15	$0.10	$0.15	$0.20	$0.25
Lift Cover Plate 1 Outlet	.....	.40	.55	.55	.65
Radio Plates—Sgle. or Duplex	.20	.15	.20	.20	.30
Telephone " One Outlet	.20	.....	.35	.....	.45
" " Double "	.20	.....	.45	.....	.50
Disappearing Door Plate Sgle.	.....	.....	.....	.....	.75
" " " Duplex	.....	.....	.....	.....	1.15
Chapman Receptacle "	.....	.....	.....	.....	.75
Blank Plates One Gang	.20	.25	.30	.30	.40
Bull's Eye Plate One Gang	.80	.70	.80	.80	.85
" " and 1 Switch Comb	.90	.....	.....	.....	1.00
" " and 1 Recep. "	.....	.....	.....	.....	1.00
Switch and Sgle. or Duplex Recep.	.50	.55	.70	.....	.80
Steel Plates for 30 and 40 Amp. Polarized Receptacles					.80
Solid Brass Plates 30, 40 & 60 Amp. "					1.65
Screwless Plates Bakelite for Hubbell Receptacles					.55
Porcelain Enameled Plates for Sgle. or Duplex Receptacles					.25
Mirror Glass Plates for Single Receptacle					1.00
DeLuxe Metal Plates for Single or Duplex Receptacles					.90
DeLuxe Wood Inlaid Plates for Single or Duplex Receptacles					2.35

CAPS & PLUGS For Receptacles

	Price
10 Amp. Pony Bakelite Cap	$0.10
10 " Standard " "	.10
10 " " Cap With Extension Knob	.15
10 " " Brass Covered Cap	.40
10 " " Steel "	.15
10 " " Cord Grip Cap	.30
10 " Tandem Blade Compo. Cap	.25
Radio Jack Plug	.50
Chapman Plug Compos	1.00
Chapman Plug Porcelain	.60
Disappearing Door Plug Brass Top	1.40
10 Amp. 2 Wire Polariz. Comp. Cap	.30
10 " 2 " " Cord Grip Cap	.40
20 " 2 " " Comp. "	.50
20 " 2 " " Cord Grip "	.75
30 " 2 " " Comp. "	.90
30 " 2 " " Cord Grip "	1.65
10 " 3 " " Comp. "	.40
10 " 3 " " Cord Grip "	.70
20 " 3 " " Comp. "	.65
20 " 3 " " Cord Grip "	1.20
30 " 3 " " Porc "	.80
30 " 3 " " Comp. Cord Grip	1.65
40 " 3 " Heavy Duty Angle Cap	2.90
60 " 3 " " " With Cord Grip	2.25
110 Volt 2 CP S8 Carbon Lamp for Bull's Eye Receptacle	.65
110 Volt 2 CP S7 " " " " " "	.40

RECEPTACLES, FLUSH

STANDARD RECEPTACLES OR CONVENIENCE OUTLETS

Without Plates	Plates Extra			Price
Shallow Bakelite Side Wired			Single	$.20
" " " "			Duplex	.30
"	Porc.	" "	Single	.25
"	"	" "	Duplex	.35
Deep	Bakelite Top	"	Single	.35
"	"	"	Duplex	.45
"	Porc.	" "	Single	.30
"	"	" "	Duplex	.45

These prices apply only to the United States

SUNDRY RECEPTACLES
Plates Extra Except Where Marked "X"

	Price
For Lift Cover Plate Single	$ .70
" " " Duplex	1.00
Duplex Separate Feed Com. Gr.	.45
xSgl. With 3¼" Box Cover	.30
xDup. " 3¼" " "	.40
xSgl. " 4" " "	.35
xDup. " 4" " "	.45
xSgle " Small Brass Pl.	1.20
x " " Large " "	1.35
Edison Screw Base Recp. Single	.40
Chapman Receptacle	1.00
Radio Single	1.15
" Duplex	1.60
Disappearing Door Recp. Single	.95
" " Duplex	1.35
Screwless Plate Recep. Single	.30
" " Duplex	.45
10 Amp. Polariz. For 2 Wire Single	.65
20 " " " 2 " "	1.50
30 " " " 2 " "	1.70
30 " " " 2 "	3.00
10 " " " 3 " Single	1.40
20 " " " 3 "	1.60
30 " " " 3 " With Box Cover	5.00
40 Amp. Polariz. 3 Wire	6.00
60 " " 3 "	6.25

YAXLEY RADIO RECEPTACLES

Nos.	Connections	Price Brass	Price Bakelite
134	Several loud speakers	$2.50	$2.60
135	Loud speaker	1.00	1.10
136	Aerial & ground	1.00	1.10
137	Battery (with plug)	2.50	2.60
138	Electrical only	1.00	1.10
142	Double loud speaker	1.15	1.85
238	Loud speaker, aerial & ground	2.00	2.20
241	Aerial, ground & elect'l	2.00	2.20
242	Loud speaker & elect'l	2.00	2.20
239	Aerial, ground & battery	2.50	2.70
353	Loud speaker, aerial, ground & elect'l	3.00	....

RECEPTACLE COMBINATIONS
With Plates

	Price
Pilot Light-Plate and Single Outlet Comp.	$2.95
" " Duplex	4.25
" " Switch and Bull's Eye	3.30
" Recpt. Only With Plate	1.60
Switch and Plate 10 Amp. Sgle. Out. Comp.	1.90
" " " 20 " " "	3.00
Hubbell Switch Tap Combination Screw Plate #7093-Recep. #7163	1.75
Hubbell Switch Tap & Pilot Light Comb. Screw Plate #7317-Recep. #7280	3.35

RECEPTACLES, PORCELAIN

ALABAX RECEPTACLES AND FIXTURES

Symbol: Column No. 1—Number of Alabax Fixture.
Column No. 2—Resale Price Standard White Glaze Finish.
Column No. 3—Resale Price All Over Color B-D-E-F-G-H-J-K-L-M.
Column No. 4—Resale Price Stripe Decoration No. 1A-2A-4A.
Column No. 5 and 6—Resale Price Stripe Decoration T and U.

Column No. 1 Number	Column No. 2 White	Column No. 3 Color	Column No. 4 Stripe
AL 844	$2.75	$3.15	.....
845	3.00	3.50	.....
846-53	2.90	3.35	$3.80
847	3.15	3.60	4.00
848	2.00	2.25	2.40
849-50	2.45	2.75	2.90
851	1.50	1.75	1.90
852	2.60	3.05	3.50
859-63	1.95	2.25	2.40
864	2.20	2.55	3.10
865	2.55	3.00	3.45
866	2.45	2.90	....
867	2.80	3.25	....
869-70	2.60	2.85	3.05
871	1.65	1.90	2.10
872	2.45	2.90	3.35
873	2.80	3.25	3.70
875	2.45	2.70	2.90
898	.95	1.25	1.40
919-20-221	.70	2.00	2.15
921	.75	1.00	1.20
923	2.45	2.70	....
924	2.10	2.35	....
929-30	2.05	2.30	2.50
949-50	2.10	2.40	2.60
951	1.15	1.40	1.60
952-62	2.10	2.40	2.60
960	1.05	1.35	1.50
969-70	2.25	2.55	2.75
971	1.30	1.60	1.75
980-83	1.70	2.00	2.20
984	1.50	1.75	1.95
989	1.95	2.25	2.45
1200-02	1.70	2.00	2.15
1201-03	1.85	2.10	2.30
1273	.50	.65	.75
1274-75	.90	1.05	1.10
1276	.20	.30	.40
1300-01	2.00	2.30	2.45
1349-50	2.75	3.05	3.20
1351	1.75	2.05	2.25
1369-70	2.90	3.20	3.35
1371	1.95	2.25	2.40
1449-50	2.85	3.10	3.30
1451	1.85	2.15	2.35
AL 1469-70	$3.00	$3.30	$3.45
1471	2.10	2.35	2.55
1475-76	2.10	2.35	2.55
1477	2.45	2.75	2.90
2007-9	1.40	1.70	1.85
2008-10	1.55	1.80	1.20
2011-12	1.25	1.50	1.70
2013	1.70	2.00	2.20
2014	1.85	2.15	2.30
2015	1.55	1.85	2.00
2371	1.25	1.50	1.70
2469	3.10	3.55	4.00
2471	2.70	3.15	3.60
2669	3.95	4.40	4.85
2671	3.40	3.85	4.30
2846	3.08	3.55	4.00
2847	3.95	4.40	4.30
2852	2.85	3.30	3.75
2853	3.15	3.60	4.05
2864	2.45	2.90	3.40
2865-72	2.80	3.25	3.70
2873	3.10	3.55	4.00
2990	2.20	2.50	....
2991	1.60	1.90	....
3100	2.45	2.90	3.35
3101-02	2.20	2.65	3.10
3103	1.85	2.30	2.75
4070	1.50	1.75	....
4071	1.30	1.55	....
4072	1.55	1.80	....
4073	1.35	1.60	....
9826-36	2.20	2.50	2.65
9896	2.40	2.65	2.85
9906	2.45	2.75	2.90

Column No. 2	Column No. 3	No. 5 Stripe T	No. 6 Stripe U
10000 3.10	$3.55	$5.20	....
10001 2.85	3.30	4.95	....
10004 3.95	4.40	6.05	$5.30
10005 3.55	4.00	5.65	4.95
10006 3.70	4.15	5.80	5.05
10007 3.30	3.75	5.40	4.70

The above Prices do not include Glassware or Lamps.

RECEPTACLES, SURFACE

STANDARD RECEPTACLES or Lampholders
Keyless Porcelain
Standard Base

	Universal Nos.	Price
Pony Cleat Receptacle No. S. H. Groove—Side Screws	50715	$0.15
" Round " " " —Center "	9171	.20
Standard Cleat " " " —Side "	28795	.35
" " " " — "	9402	.30
" " With " — "	4013	.40
" " Brass Shell — "	9403	.50
" Concealed " No. S. H. Groove	4000	.45
" " " "	4001	.55
Oblong " " With " "	58300	.50
Round " " " "	8105	.45
" " " Removable Rings	50744	.55
Oblong " " S. H. Groove for Mids	4026	.65
Mogul-P & S No. 520—Arrow 5012—Hubbell 3464—G.E. 1194		.95
Miniature or Candelabra Receptacle (Small Type)	9445-6	.25
" " Extended Type	367	.35

OUTLET BOX RECEPTACLES or Lampholders
Pull and Keyless—Porcelain and Brass Shell
Standard Base

	Price
Porcelain Pull for 3¼ & 4" Box	$1.85
Brass Shell " " 3¼ & 4" "	2.15
Porcelain Keyless for 3¼" Box	.30
" " " 4" "	.45
Brass Shell " " 3¼ & 4" Box	1.00
One Piece Porc. Pull Cord or Ch. 3¼" Box	.85
" " " " " " "	1.00
" " " Keyless 3¼" "	.65
Two " " Pull with 7" Ch. 3¼" "	.35
" " " " " Ch. & Cord 3¼" "	.40
" " " " " " Ins. 3¼" "	.45
" " " " " 7" Chain 4" "	.45
" " " " " Ch. & Cord 4" "	.50
" " " " " " Ins. 4" "	.50
Keyless Mounted Blk. Metal Cov. 3¼" Box	.30
" " Galv. " " 3¼" "	.30
" " Blk. " " 4" "	.35
" " Galv. " " 4" "	.35

T-SLOT BOX RECEPTACLES—Surface Type

	Price
10 Amp. Standard Receptacle	$0.50
10 " " "	.50
10 " Receptacle with Covered Term.	.60
20 " Polarized Receptacle	.85
10 " Sgle. Porc. Rec. for 3¼" Box	.45
10 " Duplex " " 3¼" "	.50
10 " Sgle. " " 4" "	.55
10 " Duplex " " 4" "	.65

T-SLOT HEAVY DUTY & POLARIZED
Cleat and Concealed Bases

	Price
10 A. Small Concealed 2 Wire	$ .50
10 A. Small Cleat 2 "	.50
10 A. For Wood Molding 2 "	.50
10 A. Polarized Cleat 2 "	.70
10 A. Polarized Concealed 2 "	.70
10 A. Polarized Wood Molding 2 "	.80
10 A. Fielding Receptacle 2 "	.60
10 A. Polarized Concealed 3 "	.85
20 A. Polarized Cleat 2 "	1.00
20 A. Polarized Concealed 2 "	1.00
20 A. Polarized Wood Molding 2 "	.95
20 A. Polarized Concealed 3 "	1.10
30 A. Polarized Composition 2 "	1.35
40 A. Polarized Porcelain 3 "	1.35
40 A. Polarized Composition 3 "	2.10
Porc. Sub. Base for 40 Amp. Rec.	.30

CANOPY OR FIXTURE RECEPTACLE

	Price
Pull for Ceiling Ring 7" Chain	$0.35
" " " " 4" Cord	.35
" " " " Chain & Ins.	.40
" " " " " & Cord	.40
" " " " 3" Chain	.60

SIGN RECEPTACLES—Standard Base
Keyless Removable Ring

	Price
Stand. Shallow Screw Term.	$0.30
" " Covered "	.35
" " With 6" Wire Lead	.40
" " " S. H. Groove	.40
Competitive Shallow Screw Term.	.15
" " Covered "	.20
" " No. 14 Wire Lead	.15
Deep Type With Screw Term.	.30
" " Covered "	.40
" " " No. 18 Wire Lead	.40
Solid Sign Rec. With Screw Trim.	.20

Intermediate Base

	Price
Porcelain Cleat Receptacle	$.30
" " 2 Screw	.30
" " with Spring Stud	.30
" " Removable Ring	.30

R-SUNDRIES

STANDARD ROSETTES—Porcelain

	Price
Cleat—1 Piece Junior Fuseless Rosette	$ .15
" 2 " " " "	.25
" 2 " " Fusible "	.40
Concealed—2 Piece Jr. Concealed Fuseless Rosette	.25
" 2 " Jr. " Fusible "	.40
" 2 " Jr. For Wood Moulding—Fuseless	.25
" 2 " " " " Fusible	.40

	For 3¼" Box	For 4" Box
Box Type—1 Piece Rosette or Screw Terminal	$ .40	$ .55
" " 1 " " " " Without Terminal	.20	.30

For Special Conduiet Rosettes—See Pages PL-10, 11 and 12.

These prices apply only to the United States

GROUND RODS

Size	Price	Copper-weld	Galvanized Not Wired Price	Galvanized Wired Price
½"x5 Ft.	$ .55	$ .30	....	
½"x6 "	.65	.35	....	
½"x5 "	1.20	.50	$ .65	
½"x6 "	1.40	.55	.70	
½"x8 "	1.80	....	....	
½"x10 "	2.20	....	....	
¾"x5 "	1.80	....	....	

Size	Price	Copper-weld	Galvanized Not Wired Price	Galvanized Wired Price
¾"x6 Ft.	$2.15	$ .85	$1.00	
¾"x8 "	2.80	1.10	....	
¾"x10 "	3.40	....	....	
1"x5 "	2.50	....	....	
1"x8 "	3.90	....	....	
1"x10 "	4.80	....	....	

RAWLPLUGS—Standard Types

Number of Rawlplug	Drill Hole	For Screw No.	Price Each Any Length
6	⅛	6– 7	$ .02
8	⅛	8– 9	.03
10	3/16	10–11	.04
12	¼	12	.05

Number of Rawlplug	Drill Hole	For Screw No.	Price Each Any Length
14	¼	14	$ .06
16	5/16	16–18	.08
20	⅜	20–22	.12

Rawlplugs for Lag Screws

Size of Lag Screw	Size Drill Hole	Size of Rawlplug	Price Each Length 1½"	2"	2½"	3"	3½"
¼"	3/16"	¼"	$ .13	$ .15	$ .18	$ .20	....
5/16"	¼"	5/16"	.14	.17	.20	.23	....
⅜"	5/16"	⅜"	....	.20	.23	.26	....
7/16"	⅜"	7/16"	....	....	.27	.30	$ .30
½"	7/16"	½"					

NOTE: For Expansion Shields—See Page PL-10.

METAL REFLECTORS — Glassteel Diffusers

	Opal Glass 18"	20"	24"	Daylight Globe 18"	20"	24"
Threaded Pendent Hood	$ 9.95	$13.80	.....	$10.50	$14.65	....
Ceiling Hood	9.95	13.80	.....	10.50	14.65	....
Detachable Can., Pend. Hood.	10.25	14.10	$20.75	10.75	14.95	....
Detachable Can., Ceiling Hd.	10.25	14.10	.....	10.75	14.95	....
	10"	12"	16"	10"	12"	16"
Globes Only	2.50	3.95	7.95	3.10	4.80	....

NOTE.—150-200 W., 18"; 300-500 W., 20"; 750-1000, 24".
Globes: 150-200 W., 10"; 300-500 W., 12"; 750-1000, 16".

STANDARD INDUSTRIAL REFLECTORS

Prices do not include holders or sockets

Style	For Lamp Size	Diameter Bowl	With Plain Collar for Shade Holders Price	With Screw Neck for Reflector Sockets Price	Complete With Sockets Price
	25–40 W.	10"	$1.40	....	....
	50–60 "	12"	2.00	$2.20	$3.55
R. L. M. DOME	100 "	12"	2.10	2.35	3.65
TYPE	150 "	14"	2.45	2.65	3.90
	200 "	16"	2.90	3.10	4.75
	300–500 "	18"	4.00	4.20	....
	750–1000 "	20"	5.85	6.40	....
	25–40 "	5"	1.25	....	....
	50–60 "	7"	1.70	....	3.20
	100 "	8"	....	....	3.45
DEEP BOWL TYPE	100 "	8½"	1.75	2.00	....
	150 "	9"	2.00	2.20	3.65
	200 "	10"	2.45	2.65	4.20
	300–500 "	12"	4.00	4.20	....
	750–1000 "	15"	4.90	5.15	....
	25–40 "	10"	1.40	1.80	....
	50–60 "	12"	1.60	2.00	3.65
SHALLOW DOME	100 "	12"	1.90	2.15	3.90
	150 "	14"	....	....	4.20
	150 "	15"	2.80	3.10	....
	200 "	16"	....	....	5.10
	25–40 "	7"	1.30	....	....
	50–60 "	8"	1.60	....	....
ANGLE TYPE	100 "	8"	1.60	2.50	....
	150–200 "	10"	2.15	3.05	....
	300–500 "	12"	3.85	5.05	....
	750–1000 "	15"	6.05	6.90	....

Holders for above—For Standard Brass Sockets.....Each $0.20
" " " " Porc. or Alum. Sockets or Box Recept.... " .25
Sockets " " Add 10% to manufacturers' list prices.

SOCKETS

COMPLETE STANDARD SOCKETS

Complete With	Pend. Cap	⅛ Brass	⅙ Brass	¼ Brass	⅜ Brass	½ Ang.	¾ Ang.	Pend. Cord Grip
Standard Brass Shell Sockets								
Key	$ .25	$ .25	$ .30	$ .45	$ .65	$ .70	$ .80	$ .45
Keyless	.20	.20	.25	.40	.60	.65	.75	.40
Pull	.30	.30	.40	.55	.80	.80	.85	.70
Push	.25	.25	.30	.45	.65	.70	.80	.45
Electrolier Brass Shell								
Key	.30	.25	.40	.60	.....	.70	.80	...
Keyless	.25	.30	.35	.55	.....	.65	.75	...
Pull	.40	.35	.45	.70	.....	.80	.90	...
Push	.30	.25	.40	.60	.....	.70	.80	...
Lavolier Pull								
Pull	.50	.50	.60	.....	.....	.....	.....	.....
Threaded Catch Brass Sockets								
Key	.50	.50	.65	.75	...	.....	.....	.75
Keyless	.45	.45	.60	.70	...	.....	.....	.70
Pull	.65	.65	.80	.90	...	.....	.....	.90
Push	.50	.50	.65	.75	...	.....	.....	.75
Cold Molded								
Key	.55	.70	.80	.....	.95	.....	1.40	.80
Keyless	.50	.65	.75	.....	.90	.....	1.35	.75
All Porcelain Sockets								
Key	.55	.70	.80	1.00	.95	.....	1.35	.80
Keyless	.50	.65	.75	.95	.90	.....	1.30	.75
Pull	1.00	1.15	1.25	1.45	1.40	.....	1.80	1.25
Push	.70	.85	.95	1.15	1.10	.....	1.50	.95
Lock Type Brass Shell								
Key	.70	.70	.80	.90	1.15	1.20	1.25	1.00
Keyless	.65	.65	.75	.85	1.10	1.15	1.20	.95
Pull	.75	.75	.85	.95	1.20	1.25	1.30	1.10
Push	.70	.70	.80	.90	1.15	1.20	1.25	1.00

CAPS For Above Sockets

	Pend.	⅛ Brass	⅙ Brass	¼ Brass	⅜ Brass	½ Angle	¾ Angle	Pend. Cord Grip
Standard Brass Cap	$.10	$.10	$.20	$.30	$.55	$.60	$.70	$.45
Electrolier "	.10	.10	.20	.45	....	.60	.70	....
Brass Threaded "	.15	.15	.30	.40	....	....	....	.40
Cold Molded "	.15	.30	.40	....	.55	....	1.00	.40
All Porcelain "	.15	.30	.40	.60	.55	....	1.00	.40

BODIES FOR STANDARD SOCKETS

	Key	Keyless	Pull	Push Thru
Standard Brass Shell Body Only	$.20	$.15	$ .25	$ .20
Standard Electrolier Shell Body Only	.20	.15	.30	.20
Brass Shell Threaded Catch Body	.35	.30	.50	.35
Cold Molded Composition Body	.40	.35	.....	.....
All Porcelain Body Only	.40	.35	.85	.55
Lock Type Brass Shell Body Only	.60	.55	.65	.60

BASES Only For Brass and Porcelain Sockets

	Price
Cleat Base For Open Wiring	$ .40
Concld. Base for Concld. Wiring—Small	.35
Brass Cov. Base Concld. Wiring—Small	.50
Brass Covered Base for 3½ Box	.65
Brass Covered Base for 4" Box	1.10
Angle Concealed Base	.40
All Porcelain Cleat Base	.25
All Porcelain Concealed Large	.35
All Porcelain For 3½ Box	.45
All Porcelain For 4" Box	.55

BRASS BAYONET SOCKETS
Sometimes Called Wall Sockets or Receptacles

Keyless Brass Shell with Small Conc. or Slotted Base	50717 & 18	$.45
" " " " " Covered Base	60019	.75
" " " " Large " "	60020	1.00
Key " " " Small Concealed Base	9184	.70
" " " " Covered "	60018	.80
" " " with Removable Ring	50746 & 7	.70

BRASS TWIN SOCKETS & ADAPTORS or Current Taps

Pull Adaptor Socket—No Outlet	$1.15
Pull Adaptor Socket T Side Tap	1.40
Pull Twin Socket-Screw Side Outlet	2.00
Pull Socket ½" Cap T Side Tap	1.10
Keyless ½" Cap Side T Side Tap	.75
Key ½" Cap Side T Side Tap	.80

WEATHERPROOF SOCKETS

Composition Mica or Porcelain with Leads	$0.20
" " " " Decorative Sockets for Temporary Work	.55
Porcelain " " " " "	.45

CANDLE SOCKETS

Stand. Base Keyless Candle Socket with Rigid or Adjust. Hickey	$ .10
" " Pull Candle Socket with Rigid or Adjust. Hickey	.30
Std. Base Turn or Tumbler	.50
Lavolier Bracket Candle Sockets Lever Brass No. 103 to 120	.70
" " " " " " Porcelain No. 121–122	.75
" " " " " " Fibre No. 123–124	.70
" " " " Brass Lever No. 127	.70
Intermediate Base Pull Candle Socket with Paper Jacket	1.70
Intermediate Base Keyless Candle Socket Porcelain	.40
Candelabra Type Keyless Socket	.50
Candelabra Type Pull Chain Socket	1.70

CANDELABRA OR MINIATURE SOCKETS

	Price
Keyless Porcelain Male	$ .45
" " Female	.35
" Brass Shell ⅛ Cap	.60
Key " " ⅛ "	.65
Pull " " ⅜ "	1.05
Brass Shell Push ⅛" Cap	.65

DIM-A-LITE & LO-LITE SOCKETS

No.	23	23A	33	34	91
Price	$1.00	$1.25	$1.25	$1.25	$1.50

STANDARD BASE HUSK AND REFLECTOR TYPE
Porcelain Keyless

	Price
One Piece with Threaded Cap	$ .60
One Piece with Angle Cap Threaded	.80
Two Piece Body Only	.90
Two Piece with ⅛ Brass Cap	.80
Two Piece with ⅜ Brass Cap	.85
Two Piece with Pendant Cord Grip	1.00

INTERMEDIATE BASE Sockets
Brass and Weatherproof

Key Socket ⅛ Cap	$ .65	Push Socket ⅛" Cap	$0.65
Keyless Socket ⅛ Cap	.60	Wpf. Socket Wire Leads	.30
Pull Socket ⅛ Cap	1.15		

SOCKET ACCESSORIES

Adaptors for Sockets—See Pages PL-4 and 18.	
Acorn Hubbell 5919-6982-7004—or Similar—Each	$.10
Acorn Luminous Hubbell 7015 Bryant 750 GE 860—or Similar—Each	.30
Bushings Hard Rubber ⅛" Each .01c—⅜" Each	.02
Chain for Pull Sockets—Per Foot	.10
Cord for Devices—Light Type—Per Foot	.02
Cord for Devices—Heavy Type—Per Foot	.04
Extension—Benjamin No. 91	.45
Handles for Sockets—Bryant 1240-1388—or Similar	.35
Splicing Links Non-Insulating for Chain—Each	.05
Splicing Links Insulated for Chain—Each	.15

SOCKETS, HEAVY DUTY

MOGUL SOCKETS
Arrow, Bryant, G. E., Hubbell, H. & H., P. & S., Weber

All Keyless	Body Only	With ⅜ or ½ or ¾" Iron Yoke	With ⅜ or ½ or ¾" Alum. or Brass Cap
Porcelain One Piece Socket Mogul	$.65	$1.00	$1.40
" Two " "	.85	1.40	1.60
" One " with Lead Wires	.85	1.40	1.60
Brass Shell Keyless Mogul Socket ¾ or ½ Brass Cap			$3.40

These prices apply only to the United States

HEAVY DUTY WEATHERPROOF SOCKETS
Copper or Aluminum Shell

All Keyless

	Price
1 Piece with ⅜ or ½ Nipple	$0.65
1 " " Cord Grip	.65
2 " " ⅜ Nipple	.80
2 " " ½ "	.80
2 " " Cord Grip	.80

Shadeholders for above sockets.	Price
2¼ Aluminum or Copper Extra	$0.35
3¼ " " " "	.50
4 " " " "	.65

HEAVY DUTY SOCKETS—Benjamin

			Price Each
Benox Keyless	Socket with Clamp Ring	#4700 to 4703 Medium Base	$1.25
" " "	without "	" 4712 to 4715 " "	1.05
" Pull "	with "	" 4706 to 4709 " "	2.00
Benco Keyless	Socket Copper or Alum.	#4200-1-4-5 & 4335 & 7	.75
" " "	Brass	#4202-4203-4336	.90
" Pull "		4207-8 4225-26 4236-37 Brass, Copper or Alum	1.50
" Mogu l "	Copper Clad	#4210-4297	2.00

	2¼"	3¼"	4"
Benco Threaded Holders Only			
Polish. Alum. Weathprf—#4215 & 4217	$.35	$.60	....
Copper " — 4370-72 & 73	.40	.60	$1.00
Brushed Brass —4377-79 & 80	.40	.60	1.00

BENJAMIN MOGUL SOCKETS

	Without Yoke	With ⅜ or ½ Iron Yoke	With ⅜ or ½ Alum. Yoke
One Piece Socket with Lamp Grip	$1.00	$1.15	$1.50
Two Piece Socket with Lamp Grip	1.20	1.45	1.70

BENJAMIN REFLECTOR SOCKETS
Porcelain or Similar — With Type X or XR Fitting

Medium Base Keyless Tapped ⅜-½-¾ No. 4650-51 & 65	$1.20
" " " Self-Locking ⅜-½-¾ No. 4528-29-30-32-33	1.60
" " " Shock Absorb. ⅜-½-¾ No. 4676-77-78-80-81	1.45
" " " Shock Absorb. Self Lock No. 4548-49-50-52-53	1.90
" " Pull Chain No. 4534-35 & 4660-61-67	2.05
Mogul Base Keyless Shock Absorbing No. 4670-71-72	1.95
" " " Not Shock Absorbing No. 4656-57 4666	1.65
If X or XR Fitting not supplied on above sockets deduct	.45

SWITCHES, FLUSH TUMBLER

Plates & Boxes Extra

	Price
Square Handle Porcelain Cup—Sgl. Pole	$ .30
" " " " Dble. "	1.15
" " " " 3 Way "	.45
" " " " 4 "	3.30
" " Composition Cup—Sgl. Pole	.90
" " " " Dble. "	1.50
" " " " 3 Way "	1.35
" " " " 4 "	3.60
" " 20 Amp. Sgle. Pole Composition Cup	2.00
" " 20 Amp. Dble. Pole Composition Cup	2.30
Round Handle Metal Porcelain Cup—Sgl.	.40
" " " " " Dble. "	1.35
" " " " " 3 Way "	.70
" " " " " 4 "	3.85

New Circuit Type

Twin-2 Sgle. Pole Switches	$1.40
Twin-1 Sgle.—1 Three Way	1.55
Twin-2 3 Way Switches	1.75
Triplet-3 Sgle. Pole Switches	2.15
Triplet-2 Sgle. & 1-2 Way Switches	2.30
Lock Type Porcelain Cup—Sgl. Pole	1.50
" " " " Dble. "	2.20
" " " " 3 Way "	1.85
" " " " 4 "	4.70
EXTRAS—For Luminous Tip add for Each Handle	.40
For Glo Guide Handle Switches add for Each	1.00

TUMBLER SWITCH COMBINATIONS

Description	Price
6 A. S. P. Switch—Pilot Lt.—Textolite Plate	$2.85
10 A. D. P. Switch—Pilot Lt.—.060 Plate	3.30
10 " " " " Receptacle " "	1.90
20 " " " " 15A " "	2.20
Switch—Tap & Pilot Light with "	3.35
" " & Receptacle " "	1.75

PLATES For Tumbler Switches

	Price 1 Gang	2 Gang	3 Gang	4 Gang
Stamped Brass Sprayed Finish .040 Thick	$ .10	$ .20	$ .30	$1.10
" " Brush Brass " .040 "	.15	.30	.45	1.35
" " Sprayed " .060 "	.20	.40	.60	1.35
" " Brush Brass " .060 "	.25	.50	.75	1.60
Bakelite or Composition Molded	.15	.30	.45	.80
Twin & Triple B. B. or Bakelite Plates	....	.25	.25	....
Comb. Switch and Recept.—Moulded Comp.	.30	.40	....	....
" " " Pilot Light " "	.75	....	....	....
Hubbell Bakelite Screwless Plates	.60	1.10	1.60	2.25
Bryant DeLuxe Wood Inlaid any Finish	2.75	4.70	7.70	....
" " All Metal " "	1.00	1.75	2.45	....
Guth Porcelain Enamel Plates	.25	.60	1.00	....
Glass Mirror Plates	1.00	1.75	2.50	3.25
Blank Plate .040 Brush Brass Finish	.30	.60	.90	....

SWITCHES, FLUSH PUSH

Plate & Boxes Extra

	Price
Standard Shallow Type Porcelain Cup—Single Pole	$0.40
" " " " " Double "	1.35
" " " " " 3 Way "	70
" " " " " 4 "	3.85
Deep Type Porcelain Cup—Single Pole	50
" " " " Double "	1 35
" " " " 3 Way "	.70
" " " " 4 "	3.85

Plate and Boxes Extra—*Continued*

	Price
Special High Grade Composition Cup—Single Pole	$1.65
" " " " " Double "	2.00
" " " " " 3 Way "	2 00
" " " " " 4 "	4.60
Lock Type Standard Porcelain Cup—Single Pole	1.75
" " " " " Double "	2.20
" " " " " 3 Way "	2.20
" " " " " 4 "	4.70
Electrolier Non-Indicating	2.50
" Indicating	2.70
Extra for Luminous Button Add Per Switch	40

PUSH SWITCH COMBINATIONS
With Plates

	Price
Bryant 117 D. P. Indicat. Switch Flush Receptacle & .060 Plate	$2.50
413 One Push Switch-Bulls Eye and Solid Plate	4.80
518 " " Disap. Door Recp. Bulls Eye—Solid Plate	8.85
465 " D. P. Flush Switch & Pilot Lamp .060 Plate	3.90
467 " Flush Switch—Flush Recep.—Bulls Eye—Solid Plate	6.15
558 " " " Duplex " " " "	7 00

PLATES For Flush Push Switches

Description	Price 1 Gang	2 Gang	3 Gang	4 Gang
Stamped Brass Sprayed Finish .040 Thick	$ .15	$ .30	$ .45	$1.10
" " Brush Brass " .040 "	.20	.40	.60	1.35
" " Sprayed " .060 "	.25	.50	.75	1.35
" " Brush Brass " .060 "	.30	.60	.90	1.60
Bakelite or Composition	.15	.30	.45	.80
Bryant DeLuxe Plates Wood Inlaid	2.75	4.70	7.70	....
" " All Metal	1.00	1.75	2.45	....
Guth Porcelain Plates	.25	.60	1.00	....
Glass Mirror Plates	1.00	1.75	2.50	3.25
Blank Plate .040 Brush Brass Finish	.30	.60	.90	....
Combination Switch & Receptacle Moulded	.30	.40	....	....
" Push & Recept. Plates .060 Brass	....	.50	....	....
" " " " Guth Enameled	....	.65	....	....
" " " " " Mirror Glass	....	1.75	....	....

SWITCHES, SURFACE SNAP

METAL COVERED SNAP SWITCHES

Poles	Volts	Type	Size	5 Amp.	10 Amp.	20 Amp.	30 Amp.
Single	125	Non-Indicating	Pony	$ .35	....	....	....
"	"	Indicating	"	.40	....	....	....
"	"	Non-Indicating	Standard	.60	$ .80	$1.50	$2.30
"	"	Indicating	"	.65	.90	1.65	2.45
Double	250	Non-Indicating	"	.95	1.10	2.30	2.80
"	"	Indicating	"	1.05	1.25	2.45	2.95
Triple	"	Non-Indicating	"	....	3.10	3.90	4.50
"	"	Indicating	"	....	3.30	4.10	5.00
3-Way	125	Non-Indicating	"	1.10	1.75	2.45	2.95
4-Way	"	Non-Indicating	"	1.40	3.15	....	....
Electrolier	"	Non-Indicating	"	....	2.10	....	....
"	"	Indicating	"	....	2.30	....	....

ALL PORCELAIN SNAP SWITCHES

Poles	Volts	Type	Size	5 Amp.	10 Amp.	20 Amp.	30 Amp.
Single	125	Non-Indicating	Pony	$ .50	....	....	....
"	125	Indicating	"	.70	....	....	....
"	125	Non-Indicating	Standard	.75	$1.10	$1.75	$2.60
"	125	Indicating	"	.85	1.15	1.90	2.75
Double	250	Non-Indicating	"	1.00	1.30	2.60	3 05
"	250	Indicating	"	1.20	1.45	2.80	3.15
3-Way	125	Non-Indicating	"	1.00	1.45	2.80	3.15
4-Way	125	Non-Indicating	"	1.60	3.20	....	....
Electrolier	125	"	"	....	1.60	....	....
"	125	Indicating	"	....	1.80	....	....

TUMBLER OR TOGGLE SNAP SWITCHES

125-250 Volt	Metal or Composition Covers Single Pole	Double Pole	3 Way	4 Way
5 Amp. Closed or Slott. Base	$ .40	$ .95	$ .90	$1.50
5 Amp. with Outlet Box Cover 3½ or 4"	.60	....	1.00	....
10 Amp. Closed or Slott. Base	.90	1.25	1.35	....

SNAP SWITCHES FOR WOOD MOLD, CONDULETS, ETC.

5 Amp. 125 Volts	Metal Covered Indicating	Non-Indicating	All Porcelain Indicating	Non-Indicating
Single Pole	$ .65	$ .60	$ .75	$ .70
Double "	1.20	1.10	1.20	1.15
Three Way	....	1.00	1.20	....
Electrolier	1.50	1.50	....	....

PARTS FOR SNAP SWITCHES

	Price
Handles—Standard Type Each $.12—Ratchet Type	$.20
Bases—Porcelain 5 Amp. $.12—10 Amp. $.15—20 Amp	.30
Covers—10 Amp & Under Metal $.15—Porcelain	.20
Over 10 Amp. " .30 "	.30

SWITCHES, PULL CORD, CHAIN, CANOPY, LEVOLIER, ETC.

PULL CORD SWITCHES—BODIES ONLY
Small Socket Type

		Price
Ceiling—Bottom Pull		$1.00
Wall—Side Pull		1.00
Rosette—Side Pull		1.00
Fixture—Bottom Pull		1.25
	⅛" Brass Cap	.10
	¼" Brass Cap	.30
	½" Brass Cap	.20
Addition for Caps and Bases for Above Switch Bodies	Small Cleat Base	.40
	Small Slotted or Concealed Base	.35
	Large Concealed Base	.40
	Wood Moulding Base	.35
	Small Box Base Brass Covered	.50
	3¼" Box Base Brass Covered	.65
	4" Box Base Brass Covered	1.10
	3¼" Box Cover with Ring	.20
	4" Box Cover with Ring	.25

These prices apply only to the United States

CEILING PULL SWITCHES MOUNTED ON OUTLET BOX COVERS
Arrow — H & H or Equal

5020	For 3¼" Outlet Box Single Pole	$2.25
2021-25	" 3¼" " " D. P.—3 & 4 Way-2-3 Circuit	2.75
5026	" 4" " " Single Pole	2.40
2027-31	" 4" " " D. P.—3 & 4 Way-2-3 Circuit	2.85

HEAVY DUTY PULL CORD SWITCHES, METAL COVER
With 8 Feet Heavy Cord

	Price
S. P. with Small Porc. Slotted or Solid B	$2.30
D. P. with Small Porc. Slotted or Solid B	2.00
3 & 4 Point with Small Porc. Slotted or Solid B	2.00

These switches can be furnished with side or bottom open, at same price.

TYPE "O" PULL SWITCHES
For Ceiling Fixtures or Ceiling Fans

Single or Double Pole—3 & 4 Point Electrolier & Motor Control—Similar to Bryant #2473 to 2480 with ¾ Caps, cord & Ball Each $3.00

CANOPY SWITCHES

	Price
Rotary Canopy Switches any style any make (except below)	$ .35
Tumbler Canopy Switches similar to G. E. 2381	.55
Pull Type P & S—3316 or 17—Arrow 340—Bryant 666	.90

LEVOLIER PULL SWITCHES
McGill Co.

	Price
Twi-Lite Canopy or Fixture Switch #50-51-52	$1.00
Link Switch #59	1.00
Conduit Box & Fixture Switch #61-62 & 63	1.00
Switch Hickey 64 & 64 A for above	.15

PENDANT SWITCHES
With Brass Pendant Cap

	Price
Brass Shell Pend. Cap Side Button	$ .65
" " " Bottom "	.90
" Type "O" " "	2.50
All Porcelain " Side "	.60
" " (10 Amps) " "	.85
Pendant Switch & Current Tap. Comp	1.00

FEED THROUGH SWITCHES

	Price
Metal Feed Thru Switch	$.50
Composition Feed Thru Switch. Flat Back	.50
Composition Feed Thru Switch. Egg Shape	.50
Composition Feed Thru Switch. Pony	.45

DOOR SWITCHES

	Price
Open Circuit—No Box	$3.70
Closed " "	3.70
Iron Box for Door Switch	.90

DOOR SWITCHES & OPENERS
Edwards—commonly used types

#9	Door Opener	Mortise	Type	$ 2.75	#152	Rim Type Flush	$ 6.00
48	"	"	"	31.25	#152	for Surface Conduit	25.25
48A	"	"	"	34.25	154	Mortise Type	5.75
50	"	"	Rim "	31.25	153	Plate Type	7.00
50A	"	"	"	34.25	174	Door Switch	8.65
51	"	"	Plate "	34.25	2000	Box for 174 Door SW	1.30
51A	"	"	"	35.25	1541	Opener Mortise Type	10.50
52	"	"	Mortise "	38.25			
#239—Latch for #52		"	"	3.50			

Partrick & Wilkins commonly used types

Mortise Type ..... $3.75 Rim Type $4.25

MOTOR STARTING SWITCHES
For Small A. C. Motors
Arrow or H & H

	Double Pole 5 Amp. 600 Volt Price	Double Pole 30 Amp. 250 Volt Price	Triple Pole 30A. 250V—20A. 600 V. Price
¾ H. P.	$2.20	$2.40	$4.90
1 H. P.	2.30	2.30	5.10
1½ H. P.	2.45	2.45	5.30
2 H. P.	2.70	2.70	5.55

Bryant

Sentinel Circuit Breakers Single Pole for Protection of Fractional H. P. Motors No. BSB-1-2-4-6-8-10-12 and 14 ..... $2.65

Trumbull
Small Motor Starting Switches

No. 2221 —2 Pole 30A. 125 Volt—20A. 250 Volt—3A. 600 Volt without Overload Protection $2.00

No. 2361 —3 Pole 30A. 125-250 Volt—3A. 600 Volt without Overload Protection 5.00

No. 2222-6—Single Pole up to ½ H. P. 230 Volt A. C. and ¾ H. P. 115V. A. C. with Thermostatic Overload Protection 2.90

SWITCHES, KNIFE, ENTRANCE & PANEL

ENTRANCE & PANEL SWITCHES
30 Amp. 125 Volts, Plug Fused

Description	Location of Fuses	Price
Double Pole, Rev. Blades	Top	$ .80
" " " "	Bottom	.80
" " Large Size	Top	.85
Triple "	Top	1.25
" "	Bottom	1.30
Double Pole Single Branch	Top	1.30
" " " "	Bottom	1.30
" " " " Large Type	Top	1.50
Double Pole—Double Branch Vert. Mains	.....	3.00
" " " Horiz. "	.....	3.00
Trip. to D. P. Double Branch Vert. Mains	.....	3.15
" " " " " Horiz. Mains	.....	3.15

BABY KNIFE SWITCHES—Any Make

Any Make	Porcelain Base 125 Volt 15 Amp.	Porcelain Base 125 Volt 30 Amp.	Slate Base 250 Volts 15 Amp.	Slate Base 250 Volts 30 Amp.
Single Pole Single Throw	$ .50	$ .60	$ .60	$ .70
" " Double "	.85	1.00	.....	.....
Double " Single "	.60	.70	.70	.85
" " Double "	1.00	1.30	.....	1.40

TYPE "C" OPEN KNIFE SWITCHES
Slate Base Front Connected

Front Connected Slate Base	Not Fusible 2 Pole	Not Fusible 2 Pole	Not Fusible 4 Pole	Fusible 2 Pole	Fusible 3 Pole	Fusible 4 Pole
Sgl. Throw 30 A. 250 V. Only 250 & 500 V. AC	$1.15	$1.65	$2.25	.....	.....	.....
" " 30 A.	1.75	2.65	3.50	$1.75	$2.65	$3.50
" " 60 A.	2.00	3.00	4.05	2.95	4.45	5.95
" " 100 A.	4.10	6.20	8.25	6.00	9.05	12.05
" " 200 A.	7.45	11.15	14.85	11.15	16.75	22.25
Dbl. Throw 30 A. 250 V. Only.. 250 & 500 V. AC	1.90	2.95	4.20	.....	.....	.....
" " 30 A.	2.80	4.40	6.35	3.65	5.80	8.00
" " 60 A.	3.30	5.10	7.25	5.60	9.00	12.35
" " 100 A.	7.40	11.40	16.15	12.20	19.55	26.85
" " 200 A.	12.35	19.15	25.60	21.45	34.35	43.90

SWITCHES, REMOTE CONTROL

TYPE "F"—"DIAMOND H"

Amps	Single Pole Cat. No.	Single Pole Price	Double Pole Cat. No.	Double Pole Price	Three Pole Cat. No.	Three Pole Price	Four Pole Cat. No.	Four Pole Price
30	716	$ 30.00	730	$ 36.00	790	$ 43.20	610	$ 54.00
60	717	43.00	740	48.00	800	54.00	620	68.00
75	718	50.00	750	55.00	810	60.00	630	76.00
100	719	56.00	760	59.00	820	67.00	640	87.00
150	723	100.00	770	108.00	830	124.80	645	146.00
200	724	112.00	780	122.40	840	139.20	650	168.00

SWITCHES, RESIDENCE, METER SERVICE, INDUSTRIAL, ETC.

SQUARE D
For Cadmium Plated or Galvanized Switches Add 40%

SMALL SERVICE ENTRANCE SWITCHES
30 Amp. "Square D" Switches Residence Type

Numbers	Volts	Description	2 Pole	3 Pole
97211-97311	125	For Plug Fuse Solid Neut.	$1.75	$2.50
99211-99311	125	" " " Neut. Fused	1.80	3.00
78211-78311	125	" " " Meter Test	2.55	4.10
1211	125	Porc. Entr. Switch	1.80	....
97251-97351	250	Encl. Fused Solid Neut.	1.75	3.20
99251-99351	250	" " Fused Neut.	2.50	4.35

METER SERVICE SWITCHES
Branch Fuses, Cabinets Attached and Wired
Accessible Main Fuses

Cat. No.	Amps.	Volts	Poles	Neutral	Main Fuses	Branch Fuses	Price
SK-2188	30	125	2	Solid	1	4	$6.75
SK-2189	30	125–250	3	"	2	4	7.75
SK-2187	30	125	2	"	1	2	6.00
SK-2197	30	125	2	.....	2	4	7.25
SK-2233	30	125	2	.....	2	2	6.50

ENTRANCE RANGE AND LIGHTING SWITCH

No. 38372 ... Range & Lighting Switch 1-60A. 250V. & 4-30A. 125V. Br. $23.80
No. SK-2259. Back Meter Plate & Switch Support for Above 2.00

SERVICE SWITCH
Two Meter Combination

No. 38312 For Range—Water Heater—Lighting Circuits $7.35

METER SERVICE SWITCHES
"Square D" Accessible Main Fuses Without End Walls

Amps.	Poles	Fused For	Neutral	Meter Test Type Number	Meter Test Type Price	Non-Meter Test Type Number	Non-Meter Test Type Price
30	2	2 Plug	Fused	30211	$ 4.00	10211	$ 3.65
30	2	1 "	Solid	30231	3.50	10231	3.30
30	3	2 "	"	30331	4.50	10331	4.00
30	2	2 Enc.	Fused	30251	4.80	10251	4.60
30	2	1 "	Solid	30271	3.90	10271	3.90
30	3	2 "	Solid	30371	4.80	10371	4.60
60	2	2 "	Fused	30252	15.10	10252	14.20
60	2	1 "	Solid	30272	14.20	10272	13.30
60	3	2 "	Solid	30372	16.00	10372	15.05
100	2	2 "	Fused	30253	23.85	10253	23.00
100	2	1 "	Solid	30273	23.85	10273	22.10
100	3	2 "	Solid	30373	25.60	10373	23.85

These prices apply only to the United States

METER SERVICE SWITCHES
"Square D" Main Fuses Sealed Without End Walls

Amps.	Poles	Fused For	Neutral	Meter Test Type Number	Price	Non-Meter Test Type Number	Price
30	2	2 Plug	Fused	36211	$ 3.50	16211	$ 3.10
30	2	1 "	Solid	36231	3.50	16231	3.10
30	3	2 "	"	36331	3.70	16331	3.25
30	2	2 Enc.	Fused	36251	4.10	16251	3.70
30	2	1 "	Solid	36271	3.80	16271	3.40
30	3	2 "	Solid	36371	4.30	16371	3.85
60	2	2 "	Fused	36252	12.90	16252	11.95
60	2	1 "	Solid	36272	12.00	16272	11.10
60	3	2 "	Solid	36372	13.75	16372	12.85
100	2	2 "	Fused	36253	21.25	16253	20.35
100	2	1 "	Solid	36273	21.25	16273	19.45
100	3	2 "	Solid	36373	23.00	16373	21.25

MISCELLANEOUS

	Price
Enclosed Double Branch Cutout No. 35211—30 Amp. 125 Volts	$2.35
Fused Plug Receptacle " " 5021—30 " 125 "	2.20
" " Cartridge " 5001—30 " 250 "	5.65
Cabinet Porcelain Fuse Block " 1021—30 " 125 "	1.25

UNIVERSAL METER SERVICE SWITCHES
"Square D" Meter Service Types

Single Type			Ganging Type	
No. 32211 or 33211	$3.70	All 30 Amp. 125 Volt	No. 12211–13211	$4.15
No. 32311	4.00	Single Phase & DC	No. 12311	4.45
No. 34211	4.60	without end walls	No. 14311	5.65
No. 34311	5.25			

METER SERVICE SWITCHES
"Square D" Without End Walls Live & Dead Fuse Type

METER TESTING Number	Amps.	Pole	Fused	Neutral	Description	Price
55211	30	2	1 Plug	Solid	Single Type Fuse Dead	$ 2.35
58211	30	2	2 "	Fused	" " " Live	2.95
SK-916	30	2	1 "	Solid	" " " "	2.95
55311	30	3	2 "	Solid	" " " Dead	3.70
57311	30	3	2 "	"	" " " Live	3.70
15211	30	2	1 "	"	Gang Type Fuse Dead	2.80
18211	30	2	2 "	Fused	" " " Live	3.35
39231	30	2	1 "	Solid	Gang Type Acces. M. Fuses	4.40
39331	30	3	2 "	"	Gang Type Acces. M. Fuses	5.20
15311	30	3	2 "	Solid	" " " Dead	4.15
17311	30	3	2 "	"	" " " Live	4.15
58251	30	2	2 Cart.	Fused	Cartridge Fuse Live	3.30
26251	30	2	2 "	"	" " Dead	4.05
57351	30	3	2 "	Solid	" " Live	4.05
28252	60	2	2 "	Fused	" " "	8.45
27312	60	3	2 "	Solid	" " "	8.90
14312	60	3	2 "	"	" " Dead	19.80
28253	100	2	2 "	Fused	" " Live	15.05
27313	100	3	2 "	Solid	" " "	15.95
14313	100	3	2 "	"	" " Dead	27.30
NON-METER TEST TYPE						
26311	30	3	2 Plug	Solid	Plug Type Fuse Dead	$ 2.58
26351	30	3	2 Cart.	"	Cart. Type Fuse Dead	4.05
SK-659	30	3	2 Cart	Switched	Cart. Type Fuse Dead	4.60
SK-660	60	3	2 "	"	Cart. Type Fuse Dead	11.70
SK-674	100	3	2 "	"	Cart. Type Fuse Dead	19.20

POLYPHASE METER SERVICE SWITCHES
"Square D" Accessible Main Fuse Type

METER TEST TYPE Number	Amp.	Pole	Fused	Price
30391	30	3	3 Cart.	$10.65
30392	60	3	3 "	20.35
30393	100	3	3 "	30.00
NON METER TEST				
10391	30	3	3 Cart.	$10.05
10392	60	3	3 "	18.60
10393	100	3	3 "	28.25

"Square D" Sealable Main Fuses

METER TEST TYPE Number	Amp.	Pole	Fused	Price
36351	30	3	3 Cart.	$11.00
36352	60	3	3 "	17.80
36393	100	3	3 "	26.50
NON METER TEST				
SK-671	30	3	3 Cart.	$ 4.60
SK-672	60	3	3 "	11.70
SK-673	100	3	3 "	19.20

FITTINGS FOR STANDARDIZED SWITCHES

	Price
End Walls for 30 Amp. Switches	$.30
" " " 60 & 100 Amp. Switches	.80
Trough Closing Plates No. 20533 & 34	.10
Connecting Trough No. 20733—3½" Long	.45
" " " 20738—8½" "	.80
Universal End Wall & Shutters	.30
" " Meter Shutter only No. 24358	.15

OUTDOOR METER BOXES

No.	Description	Black	Galv. or Cad. Plated
12601	With Test Block	$ 7.25	$10.00
12621	Without Test Block	5.00	7.70
12611	W. P. Meter Sw. Box	10.00	

TYPE C—"Square D" Single Throw, Industrial Switches
Quick Break Only

250 Volts Fusible Amps.	2 Pole	3 Pole	Fused and Unfused. Amps.	Description	3 Pole
30	#85251 $3.20	#85351 $ 5.20	30	575V. Fused	46341 $10.95
60	#46252 $8.20	#46352 10.00	30–60	575V. Not Fused	41342 10.95
60	Solid Neutral	#47312 9.10	60	575V Fused	46342 13.65
100	#45253 $12.70	#45353 15.50	100	575V. Not Fused	41343 17.30
100	Solid Neutral	#48313 14.60	100	575V. Fused	46343 21.85
200	#46254 $20.00	#46354 26.40	200	575V. Not Fused	41344 29 15
200	Solid Neutral	#47314 22.75	200	575V. Fused	46344 38.25

TYPE A WITH ARC SUPPRESSORS
"Square D", Industrial Quick Make & Break, Single Throw

230 V. DC. and AC. Fusible Amps.	2 Pole	3 Pole	250–600 V. DC. and 575 V. AC. Unfusible Amps	2 Pole	3 Pole
x30	....	#80351 $13.65	x30	#81252 $ 9.55	#81351 $11.40
60	#86253 13.65	#86352 18.20	30–60	#81262 12.75	#81342 15.95
100	#86253 20.90	#86353 27.30	100	#81263 20.95	#81343 24.10
200	#86254 36.40	#86354 40.95	200	#81264 28.20	#81344 34.60
400	#86255 81.67	#86355 90.75	400	#81265 81.50	#81345 90.75
600	#86256 107.25	#86356 127.85	600	#81266 118.00	#81346 132.00
x60 Amp. Sw. with 30 Amp. Spacing					(x—250 Volts only).

30 AMP. TYPE C
"Square D", Quick Break, Industrial, Single Throw

250 Volts 2 Pole		Description	Single Throw 3 Pole	
No. 80251	$3.20	Quick Make & Break	No. 89351	$ 5.20
91251	2.65	Not Quick Break	91351	4.00
x90251	7.75	Quick Break Only	x90351	10.00
(x 60 Amp. Switches with 30 Amp. Clips).				

TYPE "C" SWITCHES
Cutler-Hammer (T-V) Single Throw Industrial Type Series 4131

250 Volts DC or AC Fusible Amps	2 Pole	3 Pole	575 Volts AC Fusible Amps	3 Pole	4 Pole
30	4131H2 $ 3.20	4131H13 $ 5.20	30	4131H24 $10.00	4131H34 $18.20
60	4131H3 8.20	4131H14 10.00	60	4131H25 13.65	4131H35 20.00
100	4131H4 12.75	4131H15 15.50	100	4131H26 21.85	4131H36 36.40
200	4131H5 20.00	4131H16 26.40	200	4131H27 38.25	4131H37 51.90
400	4131H6 49.15	4131H17 67.35			

125–250 Volt Solid Neut. Fusible Amps	3 Pole	4 Pole	Non-Fusible Type 250 DC 500–600 AC Amps	2 Pole	3 Pole
30	4131H39 $ 6.75	4131H44 $ 8.20	x30	4131H54 $ 3.20	4131H58 $ 4.10
60	4131H40 9.00	4131H45 11.40	60	4131H55 8.20	4131H59 8.65
100	4131H41 14.60	4131H46 20.50	100	4131H56 10.90	4131H60 12.30
200	4131H42 22.75	4131H47 31.85	200	4131H57 19.10	4131H61 22.75
400	4131H43 63.70	4131H48 82.00	x30 Amp 250 Volts Only		

ENTRANCE SWITCHES, LIGHT TYPE
Cutler-Hammer (T-V)

Amps	Description	2 Pole Numbers	Price	3 Pole Numbers	Price
30	For Plug Fuses	4141H1&2	$ 1.65	4141H3-4	$ 2.90
30	2 Blades -2 Fuses	.....	.....	4141H5	2.25
30	For Cartridge Fuses	4141H6&8	1.80	4141H9-10	3.60
30	For Cartridge Fuses	H4141H7	2.75	.....	.....
30	For 2 Cart. Blades-2 Fuses	.....	.....	4141H11	3.25
30	Non-Fusible	4141H23	2.35	4141H24	4.10
60	For Cartridge Fuses	4141H13	6.70	4141H14-15	7.80
60	For 2 Blades & 2 Fuses	.....	.....	4141H16	7.45
100	For Cartridge Fuses	4141H18	10.30	4141H19-20	12.65
100	For 2 Blades & 2 Fuses	.....	.....	4141H21	11.90

METER SERVICE SWITCHES
Cutler-Hammer (T-V) Without End Walls

Meter Test Type			Without End Walls	
	Live Fuse Type			
30	For Plug Fuses	4307H1&5	$ 2.95	4307H9	$ 3.70
30	For Cartridge Fuses	4307H2&6	3.30	4307H10	4.05
60	For Cartridge Fuses	4307H3&7	8.45	4307H11	8.90
100	For Cartridge Fuses	4307H4&8	15.05	4307H12	16.00
	Dead Fuse Type				
30	For Plug Fuses	4309H1	2.40	4309H3	3.70
30	For Cartridge Fuses	4309H4	3.80	4309H6	4.30
60	For Cartridge Fuses	4309H7	12.00	4309H9	13.75
100	For Cartridge Fuses	4309H10&11	21.20	4309H12	23.00

SAFE-LOCK METER SERVICE SWITCHES
Cutler-Hammer (T-V) Without End Walls

Accessible Main Fuses Test Type			Without End Walls	
30	For Plug Fuses	4325H1&2	$ 4.00	4325H3	$ 4.50
30	For Cartridge Fuses	4325H4&5	4.80	4325H6	4.80
60	For Cartridge Fuses	4325H7&8	15.05	4325H9	15.95
100	For Cartridge Fuses	4325H10&11	23.85	4325H12	25.60
	Non-Test Type				
30	For Plug Fuses	4327H1&2	3.65	4327H3	4.00
30	For Cartridge Fuses	4327H4&5	4.60	4327H6	4.60
60	For Cartridge Fuses	4327H7&8	14.15	4327H9	15.00
100	For Cartridge Fuses	4327H10&11	23.00	4327H12	24.00

POLYPHASE
Meter Service and Entrance Switches

All 230 V.—A. C. Description	30 A	60 A	100 A	Without End Walls 200 A
Sealed Fuses-Meter Test 3 Phase 3 Wire	$11.35	$17.60	$27.30	$57.20
" " " " 3 " 4 "	13.85	33.45	50.15	90.65
Acces. " " " 3 " 3 "	11.45	21.15	30.80	66.00
" " " 3 " 4 "	15.60	37.00	53.70	98.60
" "Non " " 3 " 3 "	10.85	19.35	29.05	48.40
" " " " 3 " 4 "	11.45	21.15	30.80	56.35

UNIVERSAL METER SERVICE SWITCHES
Cutler-Hammer (T-V)

No. Without End Walls		Price
4311H1	All 30 Amp. Standardized Meter Service Switches	$3.70
4311H2	Branch Circuit Type.	4.00
4311H3		4.60
For Detailed Description See Cutler-Hammer (Trumbull Vanderpoel) Catalog.		

SHUTTERS END WALLS
Cutler-Hammer (T-V)

	30 Amp.	60 & 100 Amp.
Single Piece End Wall used with Cabinet	$.35	$.80
Shutters for Shutter Type End Wall	.15	.30
Conduit End Wall	.35	.80
Universal End Wall	.35	....

TYPE "A" SWITCHES
Single Throw—Series 4111

Fusible 250 Volt DC or AC Amps	2 Pole	3 Pole	Fusible 575 Volt AC Amps	2 Pole	3 Pole
30	4111H1 $10.90	4111H20 $13.65	30	4111H11 $16.40	4111H30 $20.00
60	4111H2 13.65	4111H21 18.20	60	4111H12 17.30	4111H31 20.95
100	4111H3 20.95	4111H22 27.30	100	4111H13 27.30	4111H32 31.85
200	4111H4 36.40	4111H23 41.00	200	4111H14 42.80	4111H33 52.80
400	4111H5 68.25	4111H24 91.00	400	4111H15 100.00	4111H34 109.20

These prices apply only to the United States

TYPE "A" SWITCHES
Single Throw—Series 4111

Non-Fusible 250DC or 500-600 AC

Amps	2 Pole		3 Pole		Amps.	2 Pole		3 Pole	
x30	4111H74	$ 9.55	4111H84	$11.40	200	4111H77	$28.20	4111H87	$34.60
30-60	4111H75	13.65	4111H85	15.95	400	4111H78	81.90	4111H88	91.00
100	4111H76	20.95	4111H86	24.10	x250 V. only.				

MOTOR STARTING SWITCHES
Manual Operated — Cutler-Hammer
Single Pole Push Button with Overload Protection

Type of Switch	Type of Relay	Number	D. C. 115 V.	A. C. Current 110 V.	220 V.	Cycles	Price
Open.....	Fast Trip	9101H1	¼ H. P.	½ H. P.	¾ H. P.	25-60	$2.85
Enclosed...	" "	9101H2	"	"	"	"	3.70
Open.....	Slow "	9101H54	"	"	"	"	2.85
Enclosed...	" "	9101H55	"	"	"	"	3.70

Series	Description	Amps	Volts	2 Pole	3 Pole	4 Pole
4151H1	Light Duty Motor Sw. ¾HP or Less	30	115	$ 1.65	.....	.....
9115H1	Motor Switch with Thermal Cutout	30	To 550	.....	$13.90	$19.30
4231H	For infrequent Duty.	30	220	6.50	6.85	9.75
4246H	For infrequent Duty 5 HP..	30	220	12.55	13.20	16.65
4246H	For infrequent Duty 7½HP	30	440	.....	19.65	23.65
4246H	For infrequent Duty 7½HP	60	220	17.30	19.65	26.85

SMALL ENTRANCE SWITCHES
Trumbull Electric Closed or Open Ends

Numbers	Amps.	Volts	Fusing	2 Pole	3 Pole
5790 EW Porc. Base.....	30	125	For 1 Plug Fuse.....	$1.65	.....
5791-2-3-4 & 5893.....	30	125	" Plug Fuses.....	1.85	$3.45
5891-5892 Porc. Base	30	125-250	" "	1.85	2.40
13640-13641 Kappa.....	30	250	No Fuse-Slate Base..	2.75	4.10
13642-43 & 13743 Kappa..	30	250	For Enclosed Fuses..	2.75	4.35
13221-13321 Quick Break.	30	250	" " " ..	3.55	5.20

STANDARDIZED MAIN ENTRANCE SWITCHES
Trumbull Electric Single Phase or DC Solid End Plate

16361 to 16368.....	30	125-250	For Plug Fuses.....	$3.30	$4.10
16371 " 16378.....	30	" "	Enclosed Fuses..	3.65	4.40
16381 " 16388.....	60	250	" " " ..	9.25	9.70
16391 " 16398.....	100	250	" " " ..	15.85	16.75

STANDARDIZED METER SERVICE SWITCHES
Trumbull Electric For Meter Testing Open End Without End Walls

16300 to 16309.....	30	125-250	For Plug Fuses....	$ 2.95	$ 3.75
16315 " 16324.....	30	" "	Enclosed Fuses.	3.35	4.10
16330 " 16338.....	60	" "	" " "	8.45	8.90
16341 " 16348.....	100	" "	" " "	15.05	15.95

ACCESSIBLE FUSE METER SWITCHES
Trumbull Electric With Test Blades With and Without End Walls

18111.....	30	125	For 1 Plug Fuse....$	3.55	.....
18211-18311.....	30	125	" Plug Fuses.....	4.05	$4.55
18121.....	30	125-250	" 1 Enclosed Fuse	3.95	.....
18221-18321.....	30	" "	" Enclosed Fuses.	4.90	4.90
18122-222-322.....	60	" "	" " "	15.50	16.75
18123-223-323.....	100	" "	" " "	24.65	26.40
Without Test Blades					
†19111.....	30	125	For 1 Plug Fuse....$	3.35	.....
†19211-19311.....	30	125-250	" Plug Fuses....	3.70	$4.05
†19121.....	30	" "	" 1 Enclosed Fuse	3.95	.....
†19221-19321.....	30	" "	" Enclosed Fuses.	4.65	4.65
†19122-222-322.....	60	" "	" " "	14.50	15.85
†19123-223-323.....	100	" "	" " "	23.35	24.65

†No End Walls. ‡With End Walls.

SEALED FUSE METER SWITCHES
Trumbull Electric With Test Blades With and Without End Walls

†15827.....	30	125	For 1 Plug Fuse....$	2.40	.....
‡28111-28211-28311.....	30	125	" Plug Fuses....	3.55	$ 3.75
‡28121.....	30	125	" 1 Enclosed Fuse	3.85	.....
‡28221-28321.....	30	125-250	" Enclosed Fuses.	4.10	4.35
‡28122-28222-28322.....	60	" "	" " "	13.25	14.50
‡28123-223-323.....	100	" "	" " "	22.00	23.75
Without Test Blades					
†29111.....	30	125	For 1 Plug Fuse....$	3.10	.....
†29211-29311.....	30	125-250	" Plug Fuses.....	3.10	$ 3.30
†29121.....	30	125	" 1 Enclosed Fuse	3.45	.....
†29221-29321.....	30	250	" Enclosed Fuses	3.75	3.90
‡29122-222 & 322.....	60	250	" Enclosed Fuses	12.35	13.65
‡29123-223 & 323.....	60	250	" Enclosed Fuses	20.70	22.00

†No End Walls. ‡With End Walls.

UNIVERSAL METER SERVICE SWITCHES
Trumbull Electric Without End Walls

#971-123.....	30	125	For 1 Plug Fuse.....	$3.75	.....
972-123.....	30	125	For 1 Plug Fuse.....	4.70	.....
973-333.....	30	125	For 2 Plug " Solid Neu.	.....	$4.10
975-333.....	30	125	For 3 Combinations....	5.30	5.30
979-333.....	30	125	For 4 Combinations....	5.30	5.30

POLYPHASE ENTRANCE & METER SWITCHES
Trumbull Electric

Series Nos.	Style	30 Amp. 3 Wire	30 Amp. 4 Wire	60 Amp. 3 Wire	60 Amp. 4 Wire
16379	Entrance—"DO-ALL"	$ 4.70	.....	.....	.....
15321-15623	Acc. Fuse—Test Conn.	11.60	$15.00	$21.10	$37.00
17321-17623	Acc. Fuse without Test Conn.	10.95	12.80	19.40	22.00
26321-26623	Sealed Fuse with Test Conn.	11.50	14.40	17.60	33.50

Series Nos.	Style	100 Amp. 3 Wire	100 Amp. 4 Wire
15321-15623	Acc. Fuse—Test Conn.	$30.80	$47.50
17321-17623	Acc. Fuse without Test Conn.	29.05	33.45
26321-26623	Sealed Fuse with Test Conn.	37.30	44.00

ENTRANCE RANGE AND LIGHTING SWITCH

#18422-2W Switch with 1-60 A., 250 V. & 2-30 A. 125 V. Branches.....	$23.00
18422-4W Switch with 1-60 A., 250 V. & 4-30 A. 125 V. Branches.....	23.80

END WALLS, SHUTTERS, TROUGHS, ETC.
Trumbull Electric

	30 A.	60 A.	100 A.
End Wall One Piece for Standardized Switches.....	$ .30	$ .80	$ .80
End Wall One Piece for Polyphase Switches.....	.30	.80	.80
Shutters for End Walls for Standardized Switches	.15	.30	.30
Shutters for End Walls for Polyphase Switches.....	.15	.....	.....
Troughs 2-3" & 4...	$.40	5"....$.45	6"....$.50	7"....$.55

TYPE "A" INDUSTRIAL SWITCHES
Trumbull Single Throw, Quick Make & Break

Amp	230 Volts Fusible 2 Pole AC-DC	3 Pole AC Only	230 Volts—No Fuse 2 Pole AC-DC	3 Pole AC Only
30.....	72221 $10.95	72321 $13.65	36221 $ 9.60	.....
60.....	72222 13.65	72322 18.20	36222 11.85	.....
100.....	72223 20.95	72323 27.30	36223 20.00	.....
200.....	72224 36.40	72324 41.00	36224 25.50	.....

Trumbull "SNUF-ARC" TYPE

Amp	Fusible 2P. 230-575 AC & DC	3P. 230-575 AC Only	No Fuse 2P. 575V AC & DC	3P. 230-575 AC Only
30.....	72261 $16.40	72361 $20.00	36261 $12.75 *	36321 $11.40
60.....	72262 17.30	72362 21.00	36262 13.65	36362 15.95
100.....	72263 27.30	72363 31.85	36263 20.95	36363 24.10
200.....	72264 43.25	72364 52.80	36264 28.20	36364 34.60

*230 V. AC. no "Snuf Arc"

TYPE "C" SWITCHES
Trumbull Single Throw, Quick Make & Break

Amp	230 V. Fusible 2 Pole AC-DC	3 Pole AC Only	230 V. No Fuse 2 Pole AC-DC	3 Pole AC
30.....	40221 $ 5.50	40321 $ 6.85	20221 $ 5.00	20321 $ 6.40
60.....	40222 8.20	40322 10.00	20222 8.20	20322 8.65
100.....	40223 12.75	40323 15.50	20223 10.95	20323 12.30
200.....	40224 20.00	40324 26.40	20224 19.10	20324 22.75

Amp	Fusible 2P. 230 AC-DC	3 Pole 230 V.AC	Solid Neutral 2 3 Pole Blades	4 Pole Blades	3 Blades
60.....	44222 $ 8.65	44322 $10.50	43322 $ 9.55	43422	$11.85
100.....	44223 13.20	44323 15.95	43323 15.00	43423	20.95
200.....	44224 20.50	44324 26.85	43324 23.20	43424	32.30

WESTINGHOUSE
All 30 Amp. Porcelain Base

	2 Pole	3 Pole
"Midget"—S. N.—1 Blade—1 Fuse—#62612 & 62613	$1.75	....
"Type 00" Fusible—125-250 V.—Plug Fuses. 60969	1.80	#60961 $3.00
" " —S. N. — " " " — " " . 60091	1.75	62328 2.70
" " — S. N. 3 Blades — " " "	.....	60962 3.00
" " —Not Fusible—2 Blades—250 Volt. 60990	2.55	62352 2.70
" " — " " —3 " —250 "	.....	62365 4.00
" " —Fusible Cart. Fuses—250 V..... 60980	2.45	62363 4.30
" " — " " " —S.N.250 V.....	.....	62351 3.20
" " — " " " — "3 Blades.....	.....	62364 4.30
"Type WK-45" Fusible Cart. Fuses—3 Blades—250 V.....	.....	545101 5.20
"Type WK-45" S. N. Fusible Cart. Fuses— 2 & 3 Blades— 250 V.....545301	5.20	545341 5.20
"Type WK-45" Non-Fusible— 2 and 3 Pole —3 Blades.....545001	4.20	545001 4.20

TYPE C METER ENTRANCE
Westinghouse "WK-62" Quick Break

	2 Pole Fusible	3 Pole Fusible	4 Pole Fusible
60 Amp.—230 Volts.....62304	$ 9.15	62305 $10.90	62307 $13.60
100 " —230 " 62308	13.60	62309 17.25	62311 29.05
200 " —230 " 62312	21.80	62313 29.05	62315 47.20

SOLID NEUTRAL FUSIBLE

	2 Blades—2 Fuses	3 Blades—2 Fuses
60 Amp.—3 Poles.....	#62332 $ 9.15	#62306 $10.90
100 " —3 "	62330 14.55	62310 17.25
200 " —3 "	62331 22.70	62314 29.05

UNIVERSAL METER SERVICE SEALED MAIN FUSES
Westinghouse "WK-57" Meter Testing

One & Two Circuit			Four Circuit	
57924	$3.70	All 30 Amp.	57925	$5.00
57926	4.05	125 Volt For	57499	4.60
57928-31	3.60	Plug Fuses	57928	3.60
57498	5.25		57500	5.25

STANDARDIZED METER SWITCHES
Westinghouse "WK-54" Without End Walls

Amps.	Fused For	Dead Fuse Type 2 Pole No.	Price	3 Pole No.	Price	Live Fuse Type 2 Pole No.	Price	3 Pole No.	Price
30	Plug	61140	$ 2.40	.....	.....	60224	$ 2.95	59442	$ 3.70
30	"	61143	3.50	61142	$ 3.75	59441	2.95	60225	3.70
30	Enclosed	61639	3.80	.....	.....	54371	3.30	60227	4.05
30	"	61145	4.10	61144	4.30	.....	.....	59448	4.05
60	"	61150	12.80	61151	13.65	59461	8.40	60229	8.85
100	"	61152	21.10	61153	22.80	59463	14.95	60232	15.90

METER SERVICE AND ENTRANCE SWITCHES
ACCESSIBLE FUSE TYPE
Westinghouse "WK-65"

Amps.	Fused For	With Test Facilities 2 Pole No.	Price	3 Pole No.	Price	Without Test Facilities 2 Pole No.	Price	3 Pole No.	Price
30	Plug	65000	$ 3.50	.....	.....	65010	$ 3.30	.....	.....
30	"	65001	4.00	65002	$ 4.35	65011	3.65	65012	$ 4.00
30	Enclosed	65055	3.90	.....	.....	65063	3.90	.....	.....
30	"	65003	4.85	65004	4.85	65013	4.60	65014	4.60
60	"	65005	14.95	65006	15.85	65015	14.10	65016	14.95
100	"	65007	23.70	65008	25.45	65017	22.80	65018	23.70

These prices apply only to the United States

Some Types of Appleton Fittings for use with OVALTUBE

No. 403

No. 403—4" round box, 1½" deep with ears and six knockouts in side. No. 403A is the same with the addition of a fixture stud.

No. 405

No. 405—4" round, raised, open cover with ears. 6 oval knockouts, also 2⅛" flat disc fitting flush with rim. No. 400 is the same without ears and without flat disc.

No. 404

No. 404—4" square, raised, open cover without ears, 6 oval knockouts. No. 406 is same with ears and with flat disc.

No. 101

No. 101—90° Unitary Elbow, used with ½" Conduit or Junction Box.

No. 102

No. 102—90° Internal Elbow—requires no extra couplings.

No. 103

No. 103—Twin 90° Elbow.

No. 105

No. 105—90° Adjustable No-Thread Elbow.

No. 106

No. 106—Connector for Ovaltube to knockouts.

No. 104

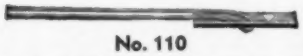
No. 104—Squeeze type Coupling.

No. 108

No. 108—Squeeze type Box Connector.

No. 109

No. 109—Coupling for use with Box Connectors or Elbows.



No. 110

No. 110—Toggle with wire fastener for use in supporting Ovaltube to tile, lath, etc.

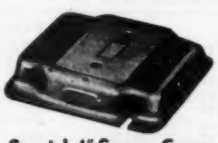
APPLETON OVALTUBE

IS SAVING TIME AND MONEY

in BUILDINGS *Everywhere!*

In re-arranging an office . . . or providing for additional outlets at a later date in new buildings . . . Appleton Ovaltube provides both convenience and economy! It is flat and light. It fits into smaller recesses with less digging into the walls or ceilings. Buildings of every size from coast to coast are saving money and work with Appleton Ovaltube and Fittings.

Appleton Fittings for use with Ovaltube give greater flexibility than any other similar fittings for this type of installation. The Covers are designed with extra knockouts to meet changing conditions. By the use of Ovaltube Elbows, labor costs are cut down—one piece being used instead of three, as well as the elimination of an extra knockout box.



Special 4" Square Cover No. 8459-D

Meets many different requirements. Can be used as a blank cover; by removing center knockout toggle switch can be mounted directly to cover; by removing entire center, one flush device can be mounted; by removing entire center and section, two flush devices can be mounted for flush plaster work. Furnished with knockout in each side and each end for Ovaltube.

Write for further details

APPLETON ELECTRIC COMPANY
1704 Wellington Ave., Chicago, U. S. A.
New York—150 Varick St. Los Angeles—340 Azusa St.
San Francisco—655 Minna St.

Manufacturers of Appleton Threaded and No-Thread Malleable Unilets

APPLETON OVALTUBE AND FITTINGS

For Convenient Re-arrangement of Outlets

POLYPHASE METER SWITCHES
Westinghouse "WK-54"—Sealed Main Fuses

30 Amp.	#60266—3 Pole—230 Volt AC—Less End Wall								$10.90
60 "	60267—3 "	230	"	"	"	"	"		16.70
100 "	60268—3 "	230	"	"	"	"	"		26.30

Westinghouse "WK-65"—Accessible Fuses

	Meter Test		3Phase 4W.-S.N.		Non-Meter Test	
30 Amp—Less End Walls..	65100	$11.00	65143	$15.00	65103	$10.40
60 " " " " ..	65101	20.20	65146	35.95	65104	18.45
100 " " " " ..	65102	29.80	65141	46.45	65105	28.05

METER TRIMS—END WALLS—TROUGHS
For Meter Switches

	30 Amp.	60 & 100 Amp.
One Piece Meter Trims	$0.35	$0.80
Blank End Wall or Shutter Type End Wall	.35	.80
Shutter Type Meter Trim or Adapter Trim	.15	.30
New Universal Trim with Slide	.35	.....
Replacement Plate or Adapting Plate	.15	.....

Wiring Trough 2-3 & 4" long . 40c—5" .45c—6" .50c—7" .55c—8" .60c.
Fuse Receptacle #R57252.....Less Fuses.....$1.25

"TYPE A" INDUSTRIAL SWITCHES
Westinghouse "WK-66"—Quick Make & Break

250 V. DC—230 V. AC—Fusible 600 V. DC—575 V. AC—Fusible

Amps.	2 Pole		3 Pole		2 Pole		3 Pole	
30	#66100	$10.90	#66101	$12.70	#66020	$16.35	#66021	$19.95
60	66103	13.60	66104	18.15	66023	17.25	66024	20.90
100	66106	20.90	66107	27.25	66026	27.25	66027	31.75
200	66109	36.30	66110	40.85	66029	42.65	66030	52.65

250 V. & 600 V. DC Non-Fusible 230 & 575 V. AC—Non-Fusible

Amps.	2 Pole		3 Pole		4 Pole	
30	#60127	$ 9.55	#66128	$11.35	#66129	$16.35
30-60	66047	13.60	66048	16.35	66049	21.80
100	66056	20.90	66057	24.50	66058	31.75
200	66059	28.15	66060	34.50	66061	46.30

"TYPE C" INDUSTRIAL SWITCHES
Westinghouse "WK-97"—Quick Make & Break

250 V. DC—230 V.AC-Fusible 575 Volt AC-Fusible

Amps.	2 Pole		3 Pole		3 Pole		4 Pole	
30	597100	$ 5.45	597101	$ 6.80	597151	$10.90	597152	$18.15
60	597103	8.15	597104	10.00	597154	13.60	597155	19.95
100	597106	12.70	597107	15.45	597157	21.80	597158	36.30
200	597109	19.95	597110	26.30	597160	38.10	597161	51.75

250 V. DC. & 230 V. AC-Non-Fus. 575 Volts AC-Non Fusible

30	597010	$ 5.00	597011	$ 6.35	597054	$10.90	597055	$18.15
60	597013	8.15	597014	8.60	597054	10.90	597055	18.15
100	597016	10.90	597017	12.25	597057	17.25	597058	27.25
200	597019	19.05	597020	22.70	597060	29.05	597061	46.65

ENTRANCE SWITCHES
Noark Closed Ends

Number	Amp.	Volt	Fuses	Blades	Neutral	2 Pole	3 Pole
8283.....	30	125	1 Plug	1	Solid	$1.75	.....
8383.....	30	125	2 "	2	Fused	1.80	.....
8393.....	30	125-250	2 "	2	Solid	.....	$2.50
8683.....	30	250	2N.E.C.	2	Fused	1.80	.....
8693.....	30	125-250	2 "	2	Solid	.....	3.20
8136-1.....	60	125-250	2 "	2	"	.....	7.25
8226-1.....	60	250	2 "	2	Fused	6.65	.....
8131-1.....	100	125-250	2 "	2	Solid	.....	11.90
8221-1.....	100	250	2 "	2	Fused	10.25	.....

METER SERVICE SWITCHES
Noark Sealed Service SECO Without End Walls

Sealed Service Number	Amp.	Volt	Fuses	Blades	Neutral	2 Pole	No End Walls 3 Pole
9993.....	30	125	1 Plug	1	Solid	$2.40	.....
9543.....	30	125	1 "	1	"	3.50	.....
9553-9523..	30	125-250	2 "	2	Fused-Solid	3.50	$3.75
9563.....	30	125-250	2N.E.C.	2	Fused	4.10	.....
9533.....	30	125-250	2 "	2	Solid	.....	4.30
9573.....	30	125	1 "	1	"	3.80	.....
66576.....	60	230	1 "	1	"	11.90	.....
66566.....	60	250	2 "	2	None	12.80	.....
66536.....	60	125-250	2 "	2	Solid	.....	13.65
66561-66571	100	250	1or2 "	1 or 2	None	21.00	.....
66531.....	100	125-250	2 "	2	"	.....	22.85

Noark Meter Service & Entrance ACCO Without End Walls

Amps.	Fused For	Meter Service Test Type 2 Pole No.	Price	3 Pole No.	Price	Entrance Non Test 2 Pole No.	Price	3 Pole No.	Price
30A	Plug....	9343	$ 3.55	.....	.....	8343	$ 3.30	.....	.....
30A	"	9353	4.00	9323	$ 4.50	8353	3.65	8323	$ 4.00
30A	Enc.....	9363	4.85	9333	4.85	8363	4.60	8333	4.60
30A	"	9373	3.90	.....	.....	8273	3.90	.....	.....
60A	"	66366	14.95	66336	15.80	76366	14.10	76336	14.95
100A	"	66361	23.70	66331	25.45	76361	22.85	76331	23.70

ACCO Entrance Range & Lighting Switch

No. 66336RL4..Range and Lighting Sw. 1-60A. 250V. and 4-30A. 125V. Branches.....$23.80
No. 66336RL6..Range and Lighting Sw. 1-60A. 250V. and 6-30A. 125V. Branches.....26.25
No. 30.....Meter Back Plate and Switch Support for above.....2.00

UNIVERSAL Meter Service Switches—No End Walls

Number	Service Switch Blades	Fuses	Branch Circuits Circuits	Fuses	Fuse in Cir.	2 Pole	3 Pole
971123.....	1	1	2	2	1	$3.75	.....
9723-972123....	1	1	4	4	1	5.00	.....
973333.....	1 or 2	1 or 2	1 or 2	2	1 or 2	4.05	$4.05
9753-9793.....	1 or 2	1 or 2	2 or 4	4	1 or 2	5.65	5.65
975333-979333..	1 or 2	1 or 2	2 or 4	4	1 or 2	5.25	5.25

Noark Doall Without End Plate

Amps.	Fused For	2 Pole Numbers	Price	3 Pole Numbers	Price
30A	Plug.....	913123-911123	$ 2.95	912333-914333	$ 3.75
30A	Enclosed.....	921223	3.30	922333-924333	4.05
60A	"	921226	8.40	925336	8.90
100A	"	921221	14.95	925331	15.85

"TYPE C" "NUBLADE"—Quick Break
230 Volts Fusible

Amp.	2 Pole Number	Price	3 Pole Number	Price	4 Pole Number	Price
30	8223	$ 3.15	8233	$ 5.15	8243	$ 8.65
60	8226	8.15	8236	10.00	8246	12.70
100	8221	12.70	8231	15.40	8241	26.30
200	8222	19.95	8232	26.30	8242	43.55
400	8224	49.00	8234	67.15	8244	86.65

230 Volts Solid Neutral

Amp.		3 Pole Number	Price	4 Pole Number	Price
30		8933	$ 5.20	8943	$10.00
60	All Solid	8936	10.00	8946	14.50
100	Switching Neutral	8931	15.40	8941	28.15
200		8932	26.30	8942	45.40
400		8934	67.15	8944	90.75

Non-Fusible

	2 Pole 250 V.-DC-230-AC		3 Pole 230 Volts AC		4 Pole 230 Volts AC	
30	8723	$ 3.15	8733	$ 5.15	8743	$ 8.15
60	8726	8.15	8736	8.65	8746	13.60
100	8721	10.80	8731	12.25	8741	20.90
200	8722	19.05	8732	22.70	8742	38.10
400	8724	36.30	8734	47.20	8744	63.55

Quick Break "TYPE C" "NUBLADE" 575 V.-AC
575Volts AC Fusible — 575 Volts Non-Fusible

Amp.	3 Pole Number	Price	4 Pole Number	Price	3 Pole Number	Price	4 Pole Number	Price
30	8433	$10.90	8443	$18.15	8633	$ 8.15	8643	$10.90
60	8436	13.60	8446	19.95	8636	10.90	8646	18.15
100	8431	21.80	8441	36.30	8631	17.25	8641	27.25
200	8432	38.10	8442	51.75	8632	29.00	8642	42.65

ACCESSORIES FOR NOARK SWITCHES

Single Piece End Wall for 30 Amp. Switches...$.30 For 60 & 100 Amp...$.80
Shutter for " " " 30 " " ... .15 " 60 " 100 " ... .30
Universal End Wall No. 909103..... .40
Blanking Side No. 908103-908203..... .15
Trough—3-4 & 5" $.40—6" $.45—7"..... .50 8"—$.55—9"..... .80
Cabinet Fuse Block No. 902413.....1.25

POLYPHASE
Meter Service and Entrance Switches
125-250 Volts — Without End Walls

Amp.	Main Entrance "ACCO" QUAD BREAK "DOALL"—3 WIRE Accessible Fuses Number	Price	Meter Service "ACCO" QUAD BREAK Accessible Fuses Number	Price	"SECO" QUAD BREAK Sealed Fuses Number	Price
30	851233	$ 4.65	77033	$10.40	67033	$11.05	67533	$10.95
60	851236	11.60	77036	18.45	67036	20.20	67536	16.70
100	851231	19.05	77031	28.05	67031	30.00	67531	26.30

SOLID NEUTRAL SWITCHES
Noark Fusible—Quick Break

Amps.	Volts	3 Pole-2 Blades No.	Price	4 Pole-3 Blades No.	Price	5 Pole-4 Blades No.	Price
30	125-250	8123	$ 4.10	8143	$ 8.15	8153	$12.70
60	" "	8136	9.10	8146	11.35	8156	19.95
100	" "	8131	14.50	8141	20.45	8151	35.85
200	" "	8132	22.70	8142	31.75	8152	50.82
400	" "	8134	63.55	8144	81.70	8154	111.00

BULLDOG SWITCHES
Toggle Type—Quick Make & Break

Cat. Number	Volt	Poles	Blades	Fuses	Neutral	30 Amp. Switches Price
92211 & T-82211	125	2	1	1 Plug		$1.80
90211	125	2	2	2 "		4.55
90311	115	3	3	3 "		8.20
92311	125-250	3	2	2 "	Solid	5.00
91311	125-250	3	3	2 "	"	7.25
92221	250	2	1	1 Cart.		1.80
90221	250	2	2	2 "		5.45
90321	230	3	3	3 "		8.20
91321	250	3	3	2 "	Solid	7.75
90351	575 A. C.	3	3	3 "		12.75
81321-81321U	230-460	3	3	3 "		9.15

"TYPE C" NON-INTERLOCKING
Quick Make & Break
Single Throw — Fusible — Type "C"

Amps	250 Volts DC—230 Volts AC 2 Pole		3 Pole		575 Volts AC 3 Pole		4 Pole	
30 A. Porc. Base..	50221S	$ 3.20	50321S	$ 5.15	Equipped with Arc			
30 A. End Plates.	50221P	3.20	50321P	5.15	Chokers			
30 A. Slate Base.	50221	5.40	.....	.....	50351	$10.90	50451	$18.15
60 A. " " .	50222	8.20	50322	10.00	50352	13.60	50452	20.00
100 A. " " .	50223	12.70	50323	15.40	50353	21.80	50453	36.30
200 A. " " .	50224	20.00	50324	26.30	50354	38.10	50454	51.75
400 A. " " .	50225	49.00	50325	67.15	.....	.....	.....	.....

These prices apply only to the United States

TYPE "C" NON-INTERLOCKING—Continued

Single Throw — Not Fusible — Type "C"

	3 Pole 2 Blades 2 Fuse Holders Solid Neutral Blades Omitted 230 V.-AC & DC		4 Pole 3 Blades 3 Fuse Holders 115-230 V.-AC		5 Pole 4 Blades 4 Fuse Holders 115-230 V.-AC	
x 30 Amp. Type C	52311P	$ 2.50	.....	.....	.....	.....
30 " " "	52321P	3.20	52421	$ 6.40	52521	$ 12.75
60 " " "	52322	9.10	52422	11.40	52522	20.00
100 " " "	52323	14.60	52423	20.50	52523	36.00
200 " " "	52324	22.75	52424	31.85	52524	51.00
400 " " A	52325	63.75	52425	82.00	52525	122.00

xThis Switch for 125 Volts Ed. Plug Fusible.

	2 Pole	3 Pole		4 Pole	
30 A. 2 Pole—250 Volt	53221S	$ 3.20	53321S	$ 4.00	53421S	$ 5.90
30-60 A. DC and 230 Volts	53222	8.15	53322	8.65	53422	13.60
100 A. AC 3 & 4 Pole	53223	10.90	53323	12.25	53423	20.90
200 A. 230 Volts	53224	19.00	53324	22.70	53424	38.10
400 A. AC Only	53225	36.30	53325	47.20	53425	63.50

30 AMP. SERVICE ENTRANCE SWITCHES

Bulldog—Not Meter Test

Cat. Number	Volt	Poles	Description	Price
100211S & P	125	2	Fusible—For Plug Fuses	$1.65
104211S	125	2	" —Quick Make & Break	2.75
100221S & P	250	2	" —For Cartridge Fuses	2.50
103221S & P	250	2	Not "	2.75
100311SP & 101311P	115	3	A.C" Plug Fuses	3.00
104311S	115	3	A.C" " " Quick Make & Break	4.35

MAIN SERVICE

Meter Test Switches

Combining a Meter Test Switch with Range and Lighting Circuits

Number	Amp.	Volt	Poles	Neutral	Branches	Price
721204	60	125-250	3	Solid	1-60A & 4-30A	$24.10
721206	60	125-250	3	"	1-60A & 6-30A	28.50
431101	Meter Mounting Plate and Cabinet Support					1.10
412112	" End Plate					.30

"TYPE A"

Bulldog Single Throw Quick Make and Break

	2 Pole No.	Price	3 Pole No.	Price	4 Pole No.	Price
250 V. DC & 230 V. AC Fusible						
30 Amp.	10221	$10.90	10321	$13.60	10421	$16.35
60 Amp.	10222	13.60	10322	18.15	10422	21.80
100 "	10223	20.90	10323	27.25	10423	36.30
200 "	10224	36.30	10324	40.85	10424	54.45
400 "	10225	68.10	10325	82.50	10425	107.25
575 Volts—AC Fusible						
30 Amp.	10261	$16.35	10351	$19.25	10451	$24.50
60 "	10262	17.25	10352	20.90	10452	26.30
100 "	10263	27.25	10353	31.75	10453	41.75
200 "	10264	42.65	10354	52.65	10454	63.50
400 "	10265	90.75	10355	99.00	10455	128.00
Not Fusible	230 V.-AC. D.C.		575AC.ArcChok		575AC.ArcChok.	
30 Amp. 230 Volts only			13221	$11.35	13421	$16.35
30-60 Amp.	13222	$11.80	13352	15.90	13452	21.80
100 "	13223	19.95	13353	24.05	13453	31.75
200 "	13224	25.40	13354	34.50	13454	46.30
400 "	13225	54.45	13355	82.50	13455	107.25
Not Fusible	600 V.-AC&DC					
30-60 Amp.	13262	$12.70				
100 "	13263	20.40				
200 "	13264	27.65				
400 "	13265	66.25				

COMPENSATOR SWITCHES

Bulldog Quick Make & Break Fusible

Amps.	230 Volt AC 3 Pole		4 Pole	
30 A.	30321	$16.35	30421	$ 21.80
60 A.	30322	17.45	30422	26.30
100 A.	30323	28.15	30423	47.20
200 A.	30324	47.90	30424	65.35
400 A.	30325	76.25	30425	118.80
Amps.	575 Volts AC Arc Chokers 3 Pole			
30 A.	30351	$18.35		
60 A.	30352	19.25		
100 A.	30353	29.95		
200 A.	30354	50.85		
400 A.	30355	81.70		

MOTOR STARTERS

Bulldog

	3 Pole		4 Pole	
30 Amp.—Type A—230 Volts AC	40321	$16.35	40421	$22.70
60 " " " 230 " "	40322	22.70	40422	31.75
30 " " " 460 " "	40341	22.70	40441	31.75
60 " " " 460 " "	40342	32.70		

NOTE: For Bulldog Switches not listed deduct 10% from Bulldog Lists.

SMALL ENTRANCE SWITCHES

Columbia, 30 Amp.

Description						2 Pole	
Single Fused Single Blade-125 Volt-Plug Fused						320-321	$1.50
Double " Double " 125 " " "						1930	1.25
" " " " " " "						3930	1.90
" " " " 250 " Cartridge Fused						322	2.35
" " " " 250 " " "						422	2.50
Description						3 Pole	
Single Fused-Single Blade-125 Volt-Plug Fused							
Double " Double " 125 " " "						1931-2	$2.15
" " " " " " "						3931-2	2.45
" " " " 250 " Cartridge Fused						323	4.00
" " " " 250 " " "						423	4.40

ENTRANCE SWITCHES

Range and Lighting — Columbia — 3 Pole 125-250 Volt

Cat. No.	Amp.	Branches	Price
3551	60	1-30A-1-60A. 250V, N. E. C. Fused & 2-30A. Plug Fused	$34.60
3552	60	1-30A-1-60A. 250 V. " " " " 4-30A. " "	35.40
3553	60	1-30A-1-60A. 250 V. " " " " 6-30A. " "	38.60

BRANCH CIRCUIT ENTRANCE SWITCHES

Columbia

30 Amp. Series	2 Circuit 2 Pole	4 Circuit 2 Pole	4 Circuit 3 Pole	6 Circuit 2 Pole	6 Circuit 3 Pole	8 Circuit 3 Pole
2401 to 2406	$3.90	$4.90	$5.20	$5.85	$6.20	$7.15
3401 to 3406	4.90	6.20	6.50	7.15	8.45	9.50
3501 to 3506	4.75	5.85	6.20	6.90	7.50	8.45

Series 30—Quick Break—250 Volts for Meter Trims For Cartridge Fuses

	30 Amp.		60 Amp.		100 Amp.		200 Amp.	
2 Pole	3022	$5.55	3025	$ 8.75	3028	$12.50	3031	$18.20
3 Pole	3023	7.50	3026	10.00	3029	16.15	3032	24.05

INDUSTRIAL SWITCHES

Columbia

Series 70 Type C Fusible

	Amps	2 Pole Number	Price	3 Pole Number	Price
250 Volts Fusible Quick Make & Break	30A	C7001	$ 9.30	C7002	$11.30
	60A	C7004	12.00	C7005	15.50
	100A	C7007	18.85	C7008	23.65
	200A	C7010	27.95	C7011	34.65

Series 70 Type A Fusible

	Amps	2 Pole Number	Price	3 Pole Number	Price
250 Volts Fusible Quick Make & Break	30A	A7001	10.30	A7002	$12.85
	60A	A7004	13.10	A7005	17.30
	100A	A7007	21.45	A7008	27.50
	200A	A7010	30.50	A7011	28.35

Series 71-500 Volts Fusible

	Amps	2 Pole Number	Price	3 Pole Number	Price
500 Volts Quick Make & Break	30A	7101	$13.60	7102	$15.50
	60A	7104	14.00	7105	16.00
	100A	7107	23.50	7108	26.65
	200A	7110	37.70	7111	42.25

Series 73-500 Volts Unfused

	Amps	2 Pole Number	Price	3 Pole Number	Price
500 Volts Quick Make & Break	30A	7301	$10.80	7302	$12.70
	60A	7304	10.80	7305	13.25
	100A	7307	17.15	7308	19.20
	200A	7310	23.65	7311	28.45

Series 72-600 Volts Fusible

	Amps	2 Pole Number	Price	3 Pole Number	Price
600 Volts Quick Make & Break	30A	7201	$14.00	7202	$16.05
	60A	7204	14.60	7205	16.60
	100A	7207	24.10	7208	27.15
	200A	7210	38.60	7211	42.50

Series 74-600 Volts Unfused

	Amps	2 Pole Number	Price	3 Pole Number	Price
600 Volts Quick Make & Break	30A	7401	$11.70	7402	$14.35
	60A	7404	12.45	7405	14.95
	100A	7407	18.90	7408	21.45
	200A	7410	25.15	7411	29.25

Series 20-250 Volts Fusible

	Amps	2 Pole Number	Price	3 Pole Number	Price
Quick Break Only 250 Volts	30A	2022	$ 5.10	2023	$ 6.85
	60A	2025	6.85	2026	7.90
	100A	2028	10.85	2029	13.35
	200A	2031	19.10	2032	23.85

Series 23-250-500 Volts Unfused

	Amps	2 Pole Number	Price	3 Pole Number	Price
Quick Break Only 250 Volts	30A	2322	$ 4.75	2323	$ 6.25
	60A	2325	8.95	2326	9.55
	100A	2328	11.35	2329	12.55
	200A	2331	19.10	2332	23.40

MOTOR STARTING SWITCHES

Columbia, 250 Volts

	2 Pole		3 Pole	
30 Amp. Motor Start Switch	6001	$12.50	6002	$16.70
60 " " " "	6004	13.10	6005	17.25
			4 Pole	
30 Amp. Motor Start Switch			6003	$19.65
60 " " " "			6006	26.80

Wadsworth Switches

MAIN ENTRANCE SWITCHES

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Accessible Fuses Neutral	Price
1450-1250	30	125	2	1	1 Plug	Solid	$ 3.55
1402-1202	30	125	2	2	2 "	None	3.90
1403-1203	30	125-250	3	2	2 "	Solid	4.25
2250	30	125	2	1	1 NEC	"	4.15
2202	30	250	2	2	2 "	None	4.85
2203	30	125-250	3	2	2 "	Solid	4.85
1800	60	125	2	1	1 "	"	13.90
1802	60	125 or 250	2	2	2 "	None	14.75
1803	60	125-250	3	2	2 "	Solid	15.65
1900	100	125	2	1	1 "	"	22.60
1902	100	125 or 250	2	2	2 "	None	23.45
1903	100	125-250	3	2	2 "	Solid	24.35
4603	200	125-250	3	2	2 "	"	44.50
4803	400	125-250	3	2	2 "	"	93.00

These prices apply only to the United States

Switches

Wadsworth Switches—*Continued*

MAIN ENTRANCE SWITCHES—Continued

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Accessible Fuses Price
			POLYPHASE				
2230	30	250	3	3	3 NEC	None	$10.40
1830	60	250	3	3	3 "	"	19.10
1930	100	250	3	3	3 "	"	28.70
4630	200	250	3	3	3 "	"	44.50

METER SERVICE SWITCHES

Single Phase and D. C.							Accessible Fuses
1451	30	125	2	1	1 Plug	Solid	$ 3.80
1412-1212	30	125	2	2	2 "	None	4.25
1423-1223	30	125-250	3	2	2 "	Solid	4.75
2251	30	125	2	1	1 NEC	"	4.15
2212-2223	30	125 or 250	2 & 3	2	2 "	None&Solid	5.05
1851	60	125	2	1	1 "	Solid	14.75
1812-1842	60	125 or 250	2	2	2 "	None	15.65
1843	60	125-250	3	2	2 "	Solid	16.50
1951	100	125	2	1	1 "	"	24.35
1912-1942	100	125 or 250	2	2	2 "	None	24.35
1943	100	125-250	3	2	2 "	Solid	26.10
4643	200	125-250	3	2	2 "	"	51.75
4843	400	125-250	3	2	2 "	"	109.15
			POLYPHASE				
2234	30	250	3	3	3 NEC	None	$11.25
1834	60	250	3	3	3 "	"	20.85
1934	100	250	3	3	3 "	"	30.45
4634	200	250	3	3	3 "	"	60.65

METER SERVICE SWITCH—Range and Lighting Circuits

No. 1843-5 Accessible Fuse 60 Amp. 125-250 Volt—Branches 2-60 Amp. NEC Fused & 4-30 Amp. Plug Fused.....$23.65

No. MB-4 Metal Meter Board Only for Above..... 2.25

CHANNEL BANKING TYPE

All 30 Amp. Volts	Poles	Blades	Fuses	Neutral	Acces. Fuses Number	Price	Meter Service & Main Entrance No Test Number	Price
125	2	1	1 Plug	Solid	1451T	$4.25	1450T	$ 4.05
125-250	3	2	2 "	"	1423T	5.20	1403T	4.55
125	2	2	2 "	None	1412T	4.70	1402T	4.35
125	2	1	1 NEC	Solid	2251T	4.55	2250T	4.60
250	2	2	2 "	None	2212T	5.55	2202T	5.25
125-250	3	2	2 "	Solid	2223T	5.55	2203T	5.25

METER SERVICE SWITCHES

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Sealed Fuses Price
162	60	250	2	2	2 NEC	None	$ 9.15
161	60	125-250	3	2	2 "	Solid	9.55
112	100	250	2	2	2 "	None	15.65
111	100	125-250	3	2	2 "	Solid	16.50

SERVICE FUSES DEAD WITH SWITCH OPEN

38	30	125	2	1	1 Plug	Solid	$ 2.65
238	30	125	2	1	1 "	"	4.00
X360	30	125	2	1	1 "	"	3.45
X362	30	125	2	1	1 "	"	4.45
272	30	125	2	2	2 "	None	4.30
271-292	30	125-250	3	2	2 "	Solid	4.30
2351	30	125	2	1	1 NEC	"	4.05
2312	30	250	2	2	2 "	None	4.35
2323	30	250	2	2	2 "	Solid	4.55
2051	60	125	2	1	1 "	"	12.60
2042	60	125 or 250	2	2	2 "	None	13.50
2043	60	125-250	3	2	2 "	Solid	14.35
2151	100	125	2	1	1 "	Solid	21.75
2142	100	125 or 250	2	2	2 "	None	21.75
2143	100	125-250	3	2	2 "	Solid	23.45
4743	200	125-250	3	2	2 "	"	44.45
4943	400	125-250	3	2	2 "	None	101.00
			POLYPHASE				
2334	30	250	3	3	3 NEC	None	$ 9.85
2034	60	250	3	3	3 "	"	17.40
2134	100	250	3	3	3 "	"	26.95
4734	200	250	3	3	3 "	"	49.75
4934	400	250	3	3	3 "	"	113.00

MAIN ENTRANCE SWITCHES

Single Phase and D. C.							
172	60	250	2	2	2 NEC	None	$ 9.15
171	60	125-250	3	2	2 "	Solid	9.30
102	100	250	2	2	2 "	None	15.65
110	100	125-250	3	2	2 "	Solid	16.50
			POLYPHASE				
2330	30	250	3	3	3 NEC	None	$ 9.15
2030	60	250	3	3	3 "	"	15.60
2130	100	250	3	3	3 "	"	25.15

INDUSTRIAL TYPE SWITCHES

250 Volts Amps.	Poles	Blades	Fuses	Acces. Fuses Number	Sealed Price	Quick Make & Break Fuses Number	Price
30	2	2	2	9532	$13.65	8532	$ 8.45
30	3	3	3	9533	15.50	8533	9.75
60	2	2	2	9562	14.65	8562	8.90
60	3	3	3	9563	18.55	8563	10.20
100	2	2	2	9512	25.00	8512	12.45
100	3	3	3	9513	28.80	8513	15.55

OUTDOOR METER SERVICE SWITCHES

30 Amp. 3 Pole Solid Neutral Outdoor or Weatherproof.....$15.10

60 " 3 " " " " " " " 20.40

100 " 3 " " " " " " " 41.25

EXTRA END WALLS—SHUTTERS—TRIMS—ETC.

For					Wadsworth Type of Trim Flat	Extended	Shutter	Knock-out & Shutter	Meter Shutter
30 Amp.	125 Volt	Switches			$ .30	$ .50	$ .30	$ .30	$ .17
" 30 "	250 "	"			.50	.65	.50	.35	...
" 60 "	250 "	2	Pole		.65	.83	.65	.45	.25
" 60 "	250 "	3	"		.75	.90	.75	.50	...
" 100 "	250 "	2	"		.82	1.00	.82	.45	...
" 100 "	250 "	3	"		.90	1.10	.90	.50	...
" 200 "	250 "	2	"		1.00	1.15	1.00	.50	...
" 200 "	250 "	3	"		1.10	1.25	1.10	.65	...

Murray Switches

ENTRANCE SWITCHES

30 Amp. Number	Volts	Description	With End Walls 2 Pole	3 Pole
630	125	1 Blade—1 Plug Fuse S. N.	$1.60	....
231-230	125-250	2 " —2 " "	1.70	$2.40
641-2-6	125	For 1 HP—250 V.—AC & DC Motors	1.80	....
643	230	3 Blades 3 Cartridge Fuses	....	3.20
647	125-250	2 " 2 " " S. N.	....	2.50
830	125-250	2 " 2 " Sealed Fuses S. N.	....	4.00
831	125-250	2 " 2 Plug Sealed Fuses S. N.	....	2.25
		Accessible Main Fuses	With Branches Combined Without End Walls	
780-782	125-250	2 Plug Fuses 2-2 Wire Branches	$5.80	$6.80
781-783	125-250	4 " " 4-2 " "	6.55	7.55
784	125	2 " " 1-2 " "	6.60	....
785	125	4 " " 2-2 " "	7.30	....

ACCESSIBLE MAIN FUSE TYPE AA

Amps.	Poles	Fused for	Neutral	Meter Test Type No.	Price	Without End Walls Not-Meter Test Type No.	Price
30	2	1 Plug	Fused	755	$3.25	754	$3.05
30	2	1 Cart.	"	738	4.20	740	3.60
30	2	2 Plug	"	748	3.70	752	3.35
30	2	2 Cart.	"	737	4.50	757	4.25
30	2	2 Plug	Solid	756	4.20	753	3.70
30	3	2 Cart.	"	742	4.45	758	4.25
x30	2	1 Plug	Fused	776	3.25	774	3.05
x30	3	2 Plug	Solid	775	4.20	779	3.70
x30	3	2 Cart.	"	777	4.45	778	4.25
60	2	1 Cart.	Fused	766	14.20	773	15.05
60	2	2 Cart.	"	764	15.05	762	14.20
60	3	2 Cart.	Solid	765	15.95	763	15.05
100	2	2 Cart.	Fused	709	23.85	708	22.10
100	2	2 Cart.	"	718	23.85	716	23.00
100	3	2 Cart.	Solid	719	25.60	717	23.85

x—Made with cover to permit sealing fuses independent of main cover.

POLYPHASE ENTRANCE & SERVICE

Entrance Amps.	Nos.	Description	With End Walls 3 Wire	4 Wire
30	790-2	Three Legs Fused	$11.00	$11.60
60	760-9	Four Wire Solid Neutral	19.40	20.00
100	710-12	All 3 Pole 3 Phase	29.05	29.95
200	720-22	" " " "	44.55	51.85
Service				
30	791-3	Three Legs Fused	$11.60	$15.60
60	767-8	Four Wire Solid Neutral	20.70	23.80
100	711-14	All 3 Pole 3 Phase	30.80	33.25
200	721-23	" " " "	51.85	90.75

ENTRANCE SWITCH

Range and Lighting No. 260 Two Meter Combination Range and Light Switch 60A. Service—30A. Light Service 125-250 Volt Range $7.80

"UNISAFTI"
(Universal Standardized Switches)

All 30 Amps. Number	Pole	Fuse	Neutral	Branches & Fusing		Price
235B	2	Single		2-2-Wire	2 Fuses	$3.25
236	2	"		4-2- "	2 "	4.30
237	3	Two	Solid	1-3- "	2 "	3.75
237	2	"		1-2- "	2 "	3.75
237	3	"	Solid	2-2- "	2 "	3.75
238	3	"	Solid	4-2- "	4 "	4.85
238	2	"		2-2- "	4 "	4.85

METER SERVICE SWITCHES

Fuses & Blades Dead Amp.	Volts	Description	Sealed Fuses 2 Pole No.	Price	Without End Walls 3 Pole No.	Price
30	125	For Plug Fuses	232	$ 2.20	233	$ 3.35
60	250	For Cart. Fuses	364	12.85	365	13.75
60	250	For Cart. Fuses	368	12.75		
Fuses Alive						
30	125	For Plug Fuses	330-1	$ 2.65	333	$ 3.35
30	250	For Cart. Fuses	130	2.65	133	3.35
60	250	" " "	360	8.45	361-3	8.90
100	250	" " "	310	15.05	313-4	15.95

SEALABLE MAIN FUSES

Polyphase—3 Wire

	30 Amp.	60 Amp.	100 Amp.
3 Pole-3 Blades-For Cart. Fuses 250V.	332 $11.10	362 $16.80	311 $26.50

TYPE C-SWITCHES

Fusible Amps.	Description All Cart. Fuse	2 Pole No.	Price	3 Pole No.	Price	Quick Break 4 Pole No.	Price
30		632	$2.65	633	$3.75	634	$6.95
30	Solid Neutral 125-250	...	....	636	3.75	...	....
60		661	6.60	663	7.45	667	9.60
60	Solid Neutral 125-250	465	6.60	665	7.10	...	....
60	" " " "	...	....	662	7.45	663B	7.85
100		611	10.50	613	12.80	610	19.50
100	Solid Neutral 125-250	507	10.50	615	11.60	614	19.50
100	" " " "	...	....	612	12.80	613B	13.50
200		621	18.50	623	22.75	629	40.85
200	Solid Neutral 125-250	...	....	625	19.20	...	....
200	" " " "	...	....	622	22.75	623B	23.70

END WALLS, PLATES & TROUGHS & ADAPTORS

	30 Amp.	60 Amp.	100 Amp.
End Wall	$.20	$.65	$1.00
Shutter	.15	.25	.25
Closure Plate	.30	.30	.30
Trough Cover & Adapting Slide	.15	.15	.15
Trough 2" 3 & 4"			$.40
" 5"			.45
" 6"			.50
" 7"			.55
" 8"			.60
" 9"			.65
" 10"			.75

These prices apply only to the United States

S-SUNDRIES

WOOD SCREWS—Flat Head

Size	Price Per Doz.	Size	Price Per Doz.	Size	Price Per Doz.
¼"x6 & Smaller	$.05	1¼x12	$.07	2¼x10	$.08
½"x8	.05	1½x6	.07	2¼x12	.09
½"x6	.05	1½x8	.07	2½x10	.07
¾"x6	.05	1½x10	.07	2½x8	.08
¾"x8	.05	1½x12	.07	2½x10	.09
1"x6	.05	2"x6	.07	2½x12	.10
1"x8	.05	2"x8	.08	3"x8	.09
1"x10	.05	2"x10	.08	3"x10	.10
1¼x6	.06	2"x12	.09	3"x12	.13
1¼x8	.06	2¼x6	.07	3"x14	.15
1¼x10	.07	2¼x8	.07		

NOTE—For Round Head Wood Screws Add 30% to above prices.

MACHINE SCREWS—Round or Flat Head

Size	Price per Dozen Iron	Brass	Size	Price per Dozen Iron	Brass
4/6 x ⅛	$.05	$.08	10/24 x ¾	$.06	$.20
4/6 x ¼	.05	.09	10/24 x 1	.06	.22
4/6 x ⅜	.05	.10	10/24 x 1¼	.06	.28
4/6 x 1	.05	.12	10/24 x 1½	.07	.29
6/32 x ⅛	.05	.12	¼ x 20—¾	.08	.36
6/32 x ¼	.05	.12	¼ x 20—1	.09	.40
6/32 x ⅜	.05	.13	¼ x 20—1¼	.10	.45
4/6 x 1	.05	.15	¼ x 20—1½	.12	.50

NOTE—For Machine Screws with Fillister Head add 25% to above prices.

LAG SCREWS
Square Heads or Coach Screws

Length	Price Each 2"	2½"	3"	3½"	4"	4½"	5"	6"
⅛ Black	$.03	$.03	$.04	$.04	$.04	$.04	$.04	$.05
⅜ Black	.03	.04	.04	.04	.05	.05	.05	.06
7/16 Black	.04	.04	.05	.05	.06	.06	.07	.07
½ Black	.05	.05	.06	.07	.07	.07	.08	.09
5/8 Gavl	.03	.03	.04	.04	....	....	....	....
¾ Galv	.04	.04	.04	.04	.05	.05	.06	.06
½ Galv	.06	.06	.07	.07	.08	.08	.09	.10

STRAPS—CLIPS OR CLAMPS
For Pipe

Without Screws	Price Each ½"	¾"	1"	1¼"
Galvanized Straps, 2 Hole	$.01	$.01	$.01	$.02
(Per Pound $.20) No. Straps per Lb.	45	40	25	20	13
Light Steel Straps ,1 Hole	.04	.05	.06	.08	....
Mall. Iron Clamps, 1 Hole	.04	.05	.06	.08	.12
P & S Conduit Clamps with Bolts Series 1400	....	.10	.14	.18	.20

Without Screws	Price Each 1¼"	2"	2½"	3"
Galvanized Straps, 2 Hole	$.02	$.04	$.05	$.06
(Per Pound $.20) No. Straps per Lb.	12	7	5	4
Light Steel Straps ,1 Hole	....	....	....	....
Mall. Iron Clamps, 1 Hole	.18	.35	.50	.65
P & S Conduit Clamps with Bolts—Series 1400	.25	....	....	....

SOLDER

	40-60 Bar or Wire	50-50 Bar or Wire	Resin or Acid Core	Ribbon 30-70	Allen Alumi-Flux
Per Pound	$.65	$.70	$.85	$.75	$2.00
Per Ounce	.05	.05	.08	.07	.15

SOLDER PASTE

Make	2 oz. Cans	3 oz. Tubes	4 oz. Cans	Half Pound Cans	One Pound Cans
Allen	$.25	$.40	$.50	$.70	$1.25
Burnley	.20	....	.30	.40	.65
Crescent	.25	....	.40	.65	1.00
G. E.	.25	....	....	.90	1.50
Highland	.40	....	....	.90	1.65
Nokorode	.25	....	....	.90	1.50
Star	.25	....	.40	.65	1.00

SOLDERING SALTS

	½ Lb.	1 Lb.
Burnley—In cans each	$.40	$ .75
Yager " " "	.75	1.00
McGill Crescent—In Bottles each	.85	1.00
Nokorode—In cans each	....	1.00
Allen—In Bottles each	.75	1.00

SOLDER STICKS

	Price
Burnley	$.25
Samson	.20
Allen	.40
Crescent	.25
GE	.25
Star	.25

FIXTURE STUDS

	⅜	½
Four Prong Fixture Studs Less Bolts	$.10	$.15
Bolts Extra	.01	.01
No Bolt Fixture Studs	.10	.15

STAPLES

Staples Insulated Nails Per Dozen	$.05	Per Box of 100 $.40
Leather Nail Heads Per Dozen	.05	.40
Milonite Insulated Nails Per Dozen	.05	.40

TAPE

FRICTION

	Price Per Roll 8-Ounce Roll	4-Ounce Roll	2-Ounce Roll	1-Ounce Roll	Per Foot
Adhere	$0.25	$0.15	$0.10	$0.05	$0.01
Amazon	.35	.20	.10	.05	.01
Bulldog	.40	.20	.10	.05	.01
Clifton	.35	.20	.10	.05	.01
Dutch Brand	.35	.20	.10	.05	.01
G. E. 361	.30	.20	.10	.05	.01
Grimshaw	1.00	.50	.25	.15	.03
Hightest Firestone	.30	.15	.10	.05	.01
Holdfast "	.25	.15	.10	.05	.01
Holdtite U. S.	.30	.15	.10	.05	.01
Johns Manville Armature	.90	.45	.25	.15	.02
" " Jomanco	.55	.30	.15	.10	.02
" " White	.70	.35	.20	.10	.02
" " #3 Now #5	.25	.15	.10	.05	.01
" " #6 " #40	.30	.15	.10	.05	.01
Manson	.60	.30	.15	.10	.02
O. K.	.30	.15	.10	.05	.01
P & B	.35	.20	.10	.05	.01
Security	.25	.15	.10	.05	.01
Slipknot	.30	.15	.10	.05	.01
Two Plex	.65	.35	.20	.10	.04
Vim Gray	.60	.30	.15	.10	.02

RUBBER

Akron Firestone	$0.30	$0.15	$0.10	$0.05	$0.03
Amazon	.50	.25	.15	.10	.04
Dutch Brand	.30	.15	.10	.05	.03
G. E. 362	.30	.15	.10	.05	.03
Imperial	.30	.15	.10	.05	.03
Okonite	.75	.40	.20	.10	.04
Paragon	.85	.45	.25	.15	.04
P. R. Splicing	.30	.15	.10	.05	.03
Relio U. S.	.25	.15	.10	.05	.03
Security	.30	.15	.10	.05	.03
Twoplex	.65	.35	.20	.10	.04
U. S.	.25	.15	.10	.05	.03
USCO	.50	.25	.15	.10	.04

TELEPHONES

COUCH TELEPHONES
Vestibule Type

No. 74 Armored Cord Receiver Type	$25.00
No. 74A Swing Arm Receiver Type	37.50
No. 74C Cordless Loud Speaker Type	30.75
Above prices are for telephones complete but do not include for any call buttons.	
Add for buttons—Janitor Calling Buttons if fitted	$.95
Add for Each Suite Calling Button	.95

SUITE TELEPHONES

Series 2809 to 2849 or 1909 to 49 — Page 22 Bulletin No. 89 S. H. Couch Co.

Number of Buttons	0	1	2	3
Price Ea. Surface or Flush	$11.40	$11.40	$12.45	$13.60

TELEPHONE CABLES

Number of Conductors	Braided Type "B" Number	Price per Foot	Lead Covered Type "L" Number	Price per Foot
8	B-8	$.14	L-8	$.18
12	B-12	.15½	L-12	.21
16	B-16	.18	L-16	.27
21	B-21	.22	L-21	.29
25	B-25	.24	L-25	.32
31	B-31	.27	L-31	.39
37	B-37	.30	L-37	.44

EDWARDS TELEPHONES
Vestibule Type

No. 321 and 307 Armored Cord Receiver Type	$25.00
No. 322 and 306 Cordless Loud Speaker "	30.75
Above prices are for telephones complete but do not include any call buttons.	
Add for each Call Button	$0.95
" " " Mail Box	3.25

Apartment Telephones

No. 3322 and 3352 Surface Wall Type Watch Case Receiver	$12.50
No. 3332 and 3362 " " " Long Hand "	16.75
No. 3342 and 3372 Flush " " Watch Case "	12.50
Above prices are for telephones complete with two push buttons—Add $1.10 for 3 Buttons.	

STANLEY & PATTERSON TELEPHONES
Vestibule Type

No. 9-PE Armored Cord Receiver Type	$25.00
No. 8-PVE Cordless Loud Speaker "	30.75
Above prices are for telephones complete but do not include any buttons.	
Add for each Call Button	.95
No. 12603—3 Gang Mail Box, for use with Vestibule Telephones	12.50
Add for each additional Gang	4.20

Apartment Telephones

No. 2524-PE Surface Wall Type with Watch Case Receiver	$12.50
No. 1172-PE " " " " Long "	16.75
No. 2530-PE Flush " " " Watch Case "	12.50
Above prices are for Telephones complete with two push buttons.	

These prices apply only to the United States

TIME SWITCHES

ACE TIME SWITCHES—SELF WOUND

All AC or DC On and Off Types — Sgl. or Dble. Pole — 100 to 130 Volts — Up to 60 Cycle
No. 35 $45.00 No. E4 $47.50 No. E6 $50.00
All Dble. Pole — 20 Amp. — 125 Volts Each Circuit
Two Circuit Types — A2, B2, C2, E2, G2 ..... $45.00

GENERAL ELECTRIC TIME SWITCHES

TYPE T-8C—Sgle. Pole
15 Amp. Indoor Service

Type	Cat No.	115 V. Price	230 V. Price
T-8C1	34x979 to 984	$22.00	$23.00
T-8C3	34x985 to 990	23.00	24.00
T-8C4	34x991 to 996	22.00	23.00
TYPE T-9— Dble. Pole 30 Amp. In or Outdoor Service			
60 and 50 Cycle	10x637-40	40.00	41.00
40 and 25 "	10x641-44	40.00	41.00
Holiday Cutout Extra		1.00	4.00

TYPE T-13 ELECTRICALLY OPERATED

Volts	Amp.	Switch Pole	Switch Throw	60 Cycle	50 Cycle	25 Cycle	Price
With Plain Dial				Two Adjustable Riders			
115	30	1	1	3T13AA7	3T13AA9	3T13AA11	$25.00
230	15	1	1	3T13AA2	3T13AA4	3T13AA6	26.00
115	30	2	1	3T13CA7	3T13CA9	3T13CA11	28.00
230	15	2	1	3T13CA2	3T13CA4	3T13CA6	29.00
With Astronomic Dial				Two Moving Riders			
115	30	1	1	3T13AB7	3T13AB9	3T13AB11	$40.00
230	15	1	1	3T13AB2	3T13AB4	3T13AB6	41.00
115	30	2	1	3T13CB7	3T13CB9	3T13CB11	43.00
230	15	2	1	3T13CB2	3T13CB4	3T13CB6	44.00

TWO-CIRCUIT SWITCH

With Plain Dial				
115	30	3T13EA7	3T13EA9	3T13EA11	$31.00
230	15	3T13EA2	3T13EA4	3T13EA6	32.00
With Astronomic Dial				
115	30	3T13EB7	3T13EB9	3T13EB11	46.00
230	15	3T13EB2	3T13EB4	3T13EB6	47.00

HARTFORD TIME SWITCHES

Type		10 Amp.	20 Amp.	35 Amp.	50 Amp.
B	Double Pole	$36.00	$39.00	$42.00	$50.00
C & D	Double Pole	39.00	42.00	47.00	52.00
G	Apt. Hall Light Control D. P.	38.00	.....	60.00	.....

HOROLECTRIC TIME SWITCHES

Type	Wound	Capacity	Description	Price
E	Elec.	60 Amp.		$32.00
H	Hand	60 "	Double Pole	24.00
EW	Elec.	60 "	Same as Type E & H on a Mounting Plate in	42.00
HW	Hand	60 "	Weatherproof Box	34.00
EO	Elec.	60 "		38.00
HO	Hand	60 "	With Automatic Cutout for omitting opera-	30.00
EOW	Elec.	60 "	tion on Sunday or any days desired	48.00
HOW	Hand	60 "		40.00
ET	Elec.	60 "		35.00
HT	Hand	60 "	Equipped for Four Operations per day, Two	27.00
ETW	Elec.	60 "	"Ons" and Two "Offs" in 24 hours	45.00
HTW	Hand	60 "		37.00
ETO	Elec.	60 "	With automatic day cutout and four opera-	42.00
HTO	Hand	60 "	tions per day	34.00
EM	Elec.	30 Amp.		38.00
HM	Hand	30 "	Single Pole, Double Throw, for operating	30.00
EMW	Elec.	30 "	large open circuit switches	48.00
HMW	Hand	30 "		40.00
EC	Elec.	30 "		35.00
HC	Hand	30 "	Single Pole, with special contact for connect-	27.00
ECW	Elec.	30 "	ing automatic electric time motor	45.00
HCW	Hand	30 "		37.00

E—Electrically Wound
M—Single Pole, DoubleThrow
O—With Automatic Day Cutout
W—In Weatherproof Box
H—Hand Wound
T—For Four Operations per Day.

RELIANCE & RACINE SWITCHES

	10 Amp.	20 Amp.	30 Amp.	50 Amp.
Racine Type 1R-2R	$19.50	$23.00	.....	.....
Reliance Type 10-20-30-50	28.00	30.00	$32.00	$36.00
Reliance Type 15 Triple Pole	.....	32.00	.....	.....
Apartment House Types A-B-C-D-E-F-G	30.00	30.00	.....	.....

SANGAMO TIME SWITCHES

Type	No. Poles	Throw	115V. AC Amp.	115V. AC Price	230V. AC Amp.	230V. AC Price	115V. DC Amp.	115V. DC Price	230V. DC Amp.	230V. DC Price
TC or TM-11	Sgle.	Sgle.	20	$50.00	15	$50.00	20	$56.00	15	$59.00
TC " TM-12	"	Dble.	20	53.00	15	53.00	20	59.00	15	62.00
TC " TM-21	Dble.	Sgle.	20	56.00	15	56.00	20	62.00	15	65.00
TC " TM-22	"	Dble.	20/5	59.00	15/5	59.00	20/5	65.00	15/5	68.00
TM-31	Triple	Sgle.	5	62.00	5	62.00	5	68.00	5	71.00
TM-32	"	Dble.	5	65.00	5	65.00	5	71.00	5	74.00

TRIPLEX

Self-Starting-Synchronous Motor and Mercury Tubes

No. Poles	Throw	Total Amp. Capacity at 110/120 Volt A. C. Per Pole	Per Switch	Indoor Type	Indoor Price	Outdoor Type	Outdoor Price
1	Sgle	20	20	201	$25.00	201W	$35.00
2	"	20	40	402	30.00	402W	40.00
3	"	20	60	603	35.00	603W	45.00
4	"	20	80	804	40.00	804W	50.00
1	Dble	20	20	202	30.00	202W	40.00
2	"	20	40	404	40.00	404W	50.00

TORK

Amp.	Pole	Synchronous and Large A. C. Types Indoor		Outdoor		Hand Wound and Large D. C. Types Amp.	Pole	Indoor		Outdoor	
20	1	#121	$30.00	#221	$38.00	15	1	#115H	$20.00	#215H	$27.50
20	2	122	35.00	222	43.00	20	1	121H	22.00	221H	30.00
20	3	123	40.00	223	48.00	20	2	122H	27.00	222H	35.00
40	1	141	35.00	241	43.00	40	1	141H	27.00	241H	35.00
40	2	142	45.00	242	53.00	40	2	142H	37.00	242H	45.00
60	1	161	45.00	261	53.00	60	1	161H	37.00	261H	45.00
60	2	8062	75.00	Omitting		60	2	7062H	97.00	Omitting	
125	2	8122	135.00	Device		125	2	7122H	142.00	Device	
200	2	8202	160.00	Included		200	2	7202H	222.00	Included	
20	1 & 1	1211	40.00	2-Circuit		20	1 & 1	1211H	32.00	2-Circuit	
20	2 & 2	1222	50.00	Apartment		20	2 & 2	1222H	42.00	Apartment	
40	1 & 1	1411	50.00	Types		40	1 & 1	1411H	42.00	Types	
20	1 & 1	1111	40.00	Mom. Cont.		20	1 & 1	1111H	32.00	Mom. Cont.	
20	1 & 1	1117	40.00	Motor Cont.		20	1 & 1	1171H	32.00	Motor Cont.	

On and Off Twice-a-Day $2.00 Extra—3 to 16 Times Per Day $5.00 Extra.

MARK-TIME SWITCH

Type A	Model 15-S & 3M	Switches & Plates	(Regular)	2.50
" A	" " "	" " "	(Automatic Return)	2.75
" B	" " "	" " "	(2 Terminal Type)	4.25
" B	" " "	" " "	(3 " ")	4.50

TRANSFORMERS

BELL & TOY TRANSFORMERS

Name	Style	Watts	Secondary Volts	50 to 133 Cycle No.	50 to 133 Cycle Price	25 to 40 Cycle No.	25 to 40 Cycle Price
DONGAN	Midget	....	8	201	$1.00	201	$1.30
	Tri-Volt	....	6–8–14	281	1.30	281	1.55
	Ace	....	8	280	1.30	280	1.55
	M-26	....	8	1211	1.40	1211	1.75
	T-26	....	6–8–14	296	1.40	296	1.75
	Heavy Duty	30	6–12–18	401	4.00	401	5.00
	" "	50	6–14–20	455	5.00	455	6.25
	" "	75	6–14–20	472	7.50	472	9.35
	" "	100	6–12–18–24	304	9.00	304	11.25
	" "	125	6–12–18–24	351	10.00	351	12.50
	" "	150	6–12–18–24	357	11.00	357	13.75
	Champion Toy	100	2 to 20	880	5.85	880	7.30
	Jupiter	60	2 to 20	821	4.10	821	5.10
	Master	150	1 to 24	850	8.25	850	10.30
ED-WARDS	Steel Clad Bell	25	Single	86	$ 1.25	86	1.45
	" " "	25	Three	86T	1.55	86T	1.75
	Porcelain Bell	25	Single	87	1.55	87	1.75
	Out. Box Bell	25	"	86ER	1.55	86ER	1.75
	Heavy Duty	50	8–16–24	88	4.25	88	4.65
	" "	75	"	89	6.40	89	7.05
	" "	100	"	90	7.40	90	8.15
	Toy	50	3 to 18	870	3.50	870	4.20
	"	75	3 to 24	871	5.85	871	7.00
	"	100	2 to 30	872	8.75	872	10.50
G. E.	Bell Residence		12 Volt	2332	1.25	192340	1.45
	Box Type		12 "	2488	1.40	2490	1.75
	Heavy Duty	50	8–16–24	2333	5.00	2339	7.00
	" "	100	10–20–30	2334	7.70	2340	11.20
JEF-FERSON	Wizard	5	10 Volt	230–101	1.00	230–102	1.15
	Nucode	5	10 Volt	230–111	1.40	230–112	1.65
	Tri-Volt	5	6 to 18V.	230–121	1.40	230–122	1.65
	Porcelain	5	10 Volt	230–131	1.40		....
	Little Jeff Toy	50	5½–13	535–101	3.65	535–102	4.30
	Midget Toy	75	5½–22	535–121	4.45	535–122	5.50
	Model 2 Toy	100	5½–23	535–131	6.75	535–132	8.40
	Model 3 Toy	150	1–30	535–141	8.65		....
	Heavy Duty	50	4 to 24	231–101	5.10	231–102	6.35
	" "	100	4 to 24	231–111	8.90	231–112	11.00
	" "	150	6 to 36	231–171	10.90	231–132	13.50
	" "	250	6 to 24	231–141	21.00	231–142	26.40
KIL-LARK	Blue Bell	10	8	6166	1.00	.....	.....
	Tri-Volt	20	6 to 16	6163	1.40	.....	.....
	Grey Bell on Cov.	10	8	7166S or R	1.40	.....	.....
	Porc. White Bell	10	8	4166	1.40	.....	.....
	Black Bell H. D.	50	6 to 20	816–50	5.00	.....	.....
	" " " "	100	6 to 24	816–100	8.90	.....	.....
	" " " "	250	6 to 24	816–250	24.25	.....	.....
	" " " "	500	5 to 24	816–500	28.85	.....	.....
	Box " In Box	10	8	9166D or S	2.30	.....	.....
RICH-ARDS	Mold. Single	25	10 Volts	221	1.40		....
	Mold. 2 Circuit	25	6 to 18V.	222	1.55		....
	Steel Sgle. Cir.	25	10 Volts	225	1.25	235	1.35
	Steel 3 Circuit	25	6 to 18V.	226	1.40		....
	Cov. Ty'e Sgle. Cir.	25	10 Volts	227	1.40	237	1.55
	Cov. Type 3 Cir.	25	6 to 18V.	228	1.55		....
STAN-DARD	Porcelain Clad	25	Single	200D1	1.65	201G1	2.10
	"	25	6-9-15	203D1	2.10	204G1	2.55
	Steel	15	Single	205S	1.25	206SG	1.40
	"	15	6-9-15	207S	1.45	208SG	1.75
	Heavy Duty Porc.	50	6-12-18	209HD1	6.45	210HE1	7.20
	" " "	100	8-16-24	212EHD	7.75	213EHE	10.30
	Steel Clad "A"	50	6-12-18	300A	6.20	301A	6.75
	" " "B"	100	6-12-18-24	302B	9.25	303B	10.75
	" " "C"	200	6-12-18-24	304C	17.50	305C	20.65
	" " "E"	300	6-12-18-24	306E	21.45	307E	25.75
	" " "F"	500	6-12-18-24	308F	28.90	309F	36.00
STAN-LEY	TB H'vy Duty	50	8–16–24	501	4.25	502	4.75
	TB H'vy Duty	75	8–16–24	751	6.40	752	7.00
PATTER-SON	TB H'vy Duty	100	8–16–24	1001	7.40	1002	8.15
	TB H'vy Duty	150	8–16–24	1501	9.10	1502	10.00

NOTE: For 220 Volt Transformers add 20% to above prices.

These prices apply only to the United States

WIRES

NEW CODE RUBBER COVERED WIRES

Special Price on No. 14 S.B. Wire

	Per Foot
In less than Coil Lots	$.01½
In Coil Lots	.01

Other Sizes	Price Per Foot No. 18	No. 16	No. 14
Fixture Wire Light	$.¾	$.01	.....
" " Heavy	.01	.01¼	.....
Solid Single Braid	.01	.01¼	See Above
" Double "	.01¼	.01½	$.01¼
Stranded Sgle. Braid	.01¼	.01½	.01¼
" Dble. "	.....	.....	.01½
Duplex Single Braid	.....	.....	.02½
" Double "	.....	.....	.03¼

Other Sizes	Price Per Foot No. 12	No. 10	No. 8	No. 6
Fixture Wire Light	.....	.....	.....	.....
" " Heavy	.....	.....	.....	.....
Solid Single Braid	$.01¼	$.01¾	.02½	$.04
" Double "	.01½	.02	.03	.04½
Stranded Sgle. Braid	.01½	.02	.03	.04½
" Dble. "	.02	.02½	.04	.05
Duplex Single Braid	.03½	.04½	.05½	.09
" Double "	.04½	.05¾	.06¾	.10

LARGER SIZES DOUBLE BRAID STRANDED

Size	Price Per Foot	Size	Price Per Foot
No. 8 D. B.	$.04	No. 0	$0.16
No. 6 D. B.	.05	No. 00	.18
No. 4 D. B.	.06	No. 000	.21
No. 3 D. B.	.07	No. 0000	.26
No. 2 D. B.	.09	250,000	.32
No. 1 D. B.	.13		

CIRCULAR MILL CABLE

Size	Price Per Foot	Size	Price Per Foot
300,000 C. M.	$0.37	700,000 C. M.	$0.80
350,000 C. M.	.42	750,000 C. M.	.86
400,000 C. M.	.46	800,000 C. M.	.90
450,000 C. M.	.52	900,000 C. M.	1.00
500,000 C. M.	.57	1,000,000 C. M.	1.12
600,000 C. M.	.70		

Additions to Code Wire for 25% (Intermediate Grade) and 30% Wire.

Sizes	For Intermediate or 25% Wire	For 30% Wire
From No. 14 to No. 10	8%	20%
From No. 8 to 4	6%	10%
From 3 to 4/0	4%	7%
From 250,000 to 1,000,000 CM.	2%	5%

WEATHERPROOF WIRE
Triple Braid

	Price No. 18	No. 16	No. 14	No. 12	No. 10	No. 8	No. 6
Per Pound Solid	$.60	$.55	$.46	$.44	$.41	$.39	$.35
" " Stranded	.....	.....	.....	.....	.45	.40	.37
Per Foot Solid	.01	.01¼	.02	.02½	.03	.04	
" " Stranded	.01¼	.01½	.02¼	.03	.03½	.04½	
Number Feet Per Pound	70	50	40	30	20	13	

EXTRAS—For slow burning W. P. Wire—Per Pound Extra ..... $.01
For Twisted Pair W. P. Wire—Per Pound Extra ..... .02
For Double Braid W. P. Wire—Per Pound Extra ..... .01
For Medium Hard Drawn—Per Pound Extra ..... .00½

For Armored Cables See Page PL-9.

ANNUNCIATOR—TELEPHONE WIRE, ETC.

		Description	No. 18	No. 16
Fixture Wire	Solid	Light ¼ Per Foot	$.00¾	$.01
	"	Heavy ¼ " "	.01	.01¼
	Stranded	Light ¼ " "	.01	.01½
	"	Heavy ¼ " "	.01¼	.01½

Annunciator Wire

Description		No. 18	No. 16	No. 14	No. 12
Single	Per Pound	$.70	$.60	$.56	.....
"	Per Foot	.00½	.00¾	.01	.....
Twisted or Duplex	Per Pound	.65	.64	.62	.....
" " "	Per Foot	.01	.01½	.02	.....

	No. 18	No. 16	No. 14
Approximate feet per pound Single Cond. Annunciator Wire	158	104	68

Office & Damp Proof Wire

Single	Per Pound	.70	.68	.64	.....
"	Per Foot	.01	.01½	.02	.....
Twisted or Duplex	Per Pound	.76	.71	.68	.....
" " "	Per Foot	.02	.03	.04	.....

"Deltabeston" or similar

Single Stranded Black or White	Per Foot	.02½	.03	.03½	$.04
Single Stranded Colored	Per Foot	.03	.03½	.04½	.05½
Single Glazed Cotton	Per Foot	.03	.03½	.04½	.05½
Single Artificial Silk	Per Foot	.04	.04	.05	....
Duplex Glazed Cotton	Per Foot	.06	.07	.09	....
Duplex Artificial Silk	Per Foot	.07	.08	.09	....
Twisted Pair Glazed Cotton	Per Foot	.07	.08	.09	....
Twisted Pair Artificial Silk	Per Foot	.07	.08	.09	....

Thermostat Wire No. 18—3 Conductor Solid—Per Ft. ..... .02

Asbestos Range Wire

Description	No. 18	No. 16	No. 14	No. 12	No. 10	No. 8
Asbestos Range Wire or Switch Board Wire Single Solid—Per Foot	$.07	.08	.09	.10	.12	.14

TELEPHONE WIRES

Size	Covered Inside & Outside Ins.	Description	Price Per Ft.
#19	3/32"	Inside 2 Cond Twisted Pr.	$ .03
19	3/32"	" 3 " " "	.04
22	5/64"	" 2 " " " Flameproof	.04
18	7/64"	Outside 2 " " Sat. Brd. Bridle W	.03
16	4/32"	" 2 " " " " " " "	.03
14	5/32"	" 2 " " " " " " "	.05
14	5/32"	" 2 " " " Copperweld-Drop W	.05

For price of single conductor use one-half of 2 Cond. price.

GALVANIZED TELEPHONE WIRE

Size BWG		No. 4	No. 6	No. 8	No. 10	No. 12	No. 14
EBB Extra Best	Per Pound	$.12	$.12	$.12	$.12	$.13	$.14
B. B. Best Best	" "	.11	.11	.11	.11	.12	.13
Steel	" "	.10	.10	.10	.10	.11	.12
Weight Per 1000 Feet		153	112	74	49	32	19
Weight Per Mile		811	590	390	258	170	99

WIRE, MAGNET
Price Per Pound

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Plain Enameled	Enameled Single Cotton	Enameled Double Cotton
8	$ .31	$ .33	.....	.....	$ .30	$ .34	$ .36
10	.32	.35	.....	.....	.31	.35	.38
12	.33	.36	.....	.....	.32	.37	.40
14	.35	.40	.....	.....	.33	.39	.43
16	.37	.43	$ .62	$ .77	.35	.41	.47
18	.41	.50	.68	.87	.37	.47	.55
20	.48	.60	.76	1.00	.40	.54	.64
22	.54	.67	.82	1.10	.42	.58	.72
24	.57	.76	.93	1.16	.45	.67	.87
26	.61	.93	1.06	1.30	.48	.80	1.04
28	.71	1.12	1.26	1.60	.51	.95	1.21
30	.88	1.21	1.35	2.27	.54	1.16	1.47
32	1.04	1.35	1.78	3.10	.61	1.40	1.96
34	1.30	2.12	2.30	4.75	.71	1.80	2.97
36	1.95	2.88	3.30	7.18	.82	2.45	3.55
38	4.42	6.85	5.10	10.15	.88	4.65	.....
40	.....	.....	.....	.....	1.36	.....	.....

NOTE: For odd sizes use half the increase of next larger size.
For ¼ lb. lots use one third of above prices.
For one ounce lots use one tenth of above prices.

Price Per 100 Feet

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Plain Enameled	Enameled Single Cotton	Enameled Double Cotton
8	$1.80	$2.00	.....	.....	$2.25	$2.50	$2.75
10	1.20	1.30	.....	.....	1.50	1.75	2.00
12	.75	.80	.....	.....	1.00	1.25	1.50
14	.60	.70	.....	.....	.75	1.00	1.25
16	.45	.55	$0.70	$0.75	.55	.65	.75
18	.30	.40	.40	.45	.30	.35	.50
20	.25	.35	.40	.25	.30	.45	
22	.15	.25	.20	.30	.20	.25	.35
24	.10	.20	.15	.20	.10	.15	.25
26	.10	.20	.15	.20	.09	.13	.25
28	.08	.12	.10	.15	.07	.10	.18
30	.08	.12	.10	.15	.07	.10	.18
32	.06	.10	.08	.12	.05	.08	.14
34	.06	.10	.08	.12	.05	.08	.14
36	.05	.08	.06	.10	.04	.06	.06
38	.05	.08	.06	.10	.04	.06	.06
40	.....	.....	.....	.....	.04	.06	.06

Note: Prices per 100 feet are higher than per pound rate to cover cost of measuring and should be used only for small lot sales.

LEAD & RUBBER COVERED WIRE AND CABLE

Size	Single Conductor Solid	Single Conductor Stranded	Duplex Two Conductor Solid	Duplex Two Conductor Stranded	Three (3) Conductor Solid	Three (3) Conductor Stranded
No. 14 Price Per Foot	$.03	$.04	$.05	$ .07	$ .11	$ .16
No. 12 " " "	.04	.05	.08	.11	.16	.19
No. 10 " " "	.05	.06	.09	.13	.18	.21
No. 8 " " "	.06	.07	.11	.15	.21	.28
No. 6 " " "	.10	.12	.16	.20	.34	.40
No. 4 " " "	.....	.14	....	.26	....	.45
No. 3 " " "	.....	.15	....	.34	....	.63
No. 2 " " "	.....	.18	....	.36	....	.68
No. 1 " " "	.....	.23	....	.50	....	.95
No. 1/0 " " "	.....	.28	....	.60	....	1.10
No. 2/0 " " "	.....	.31	....	.69	....	1.19
No. 3/0 " " "	.....	.36	....	.79	....	1.42
No. 4/0 " " "	.....	.43	....	1.00	....	1.69
250,000 C. M. Cable	.....	.52				
300,000 C. M. "	.....	.57				
350,000 C. M. "	.....	.64				
400,000 C. M. "	.....	.70				
500,000 C. M. "	.....	.81				
600,000 C. M. "	.....	1.05				
700,000 C. M. Cable	.....	1.15				
750,000 C. M. "	.....	1.25				
800,000 C. M. "	.....	1.30				
900,000 C. M. "	.....	1.35				
1,000,000 C. M. "	.....	1.50				

NOTE: Above prices are based on following quantities:
No. 14 to No. 8 Less than 100 ft. No. 6 and larger less than 50 ft.

PARKWAY CABLES

Size	Steel Taped 2 Cond.	Steel Taped 3 Cond.	Non-Metallic 2 Cond.	Non-Metallic 3 Cond.
No. 14 per ft.	$ .26	$ .37	$ .18	$ .23
No. 12 " "	.29	.41	.20	.26
No. 10 " "	.33	.52	.22	.30
No. 8 " "	.38	.61	.26	.38
No. 6 " "	.60	.89	.37	.57
No. 4 " "	.72	1.20	.50	.72
No. 2 " "	.97	1.60	.66	.93
No. 1 " "	1.32	2.00	.80	1.25
No. 0 " "	.....	2.15	.93	1.47

NOTE: Prices on Parkway Cables are based on Trade costs in quantities of less than 100 Feet. Larger quantities take lower prices. Consult your jobber.

These prices apply only to the United States

(Continued from page 28)

If this is done and the neutral grounded, then single pole fusing may be resorted to.

Lead Covered Cable for High Voltages

Has the use of a lead covered cable for the high potential such as used on neon signs been satisfactory?

Lead covered cable designed for the voltage to which it is subjected, has been quite satisfactory. However, the use of lead covered cable with insulation designed for 660 volts, and subjected to high tension generally used on gas tube signs has not been satisfactory. This naturally would be so, as insulation good for only 600 volts can not be expected to withstand voltages up to 15,000. Where this low voltage wire has been used the insulation has been cut as though with a sharp knife or razor by the action of the high tension (brush) discharge.

Circuits of Different Systems

OFFICIAL INTERPRETATION 66

QUESTION: Should the conductors of the two circuits described in the following be classified as different systems in the application of this paragraph?

A motor generator set is provided for charging storage batteries. The motor is a 3-phase, 220-volt squirrel cage induction type. The generator is a 3-wire, 10-20 volt D. C. type. Are the motor and generator circuits to be regarded as different systems?

FINDING: Yes.

WITH FINE DISREGARD FOR THE CODE:—One of the advertisements of the Commonwealth Edison Company appearing in Chicago daily papers featuring non-metallic surface extensions.

Contracting News

Information of Interest to Electrical Contractors consisting of items of news, short articles, practical ideas, etc. Our readers are invited to contribute to this department

Milwaukee League Plans Business Building Program

Various committees of the Electrical League of Milwaukee, Wis., have made intensive studies to develop constructive, business building programs. One of the programs planned is modernization for industries. An attractive 8-page booklet covering the major subjects of interest to industrial executives such as lighting, motors, heating, wiring, etc., featuring local installations and applications will be distributed among local plants by the league. The league also will, upon the request of any plant, furnish a list of the names of league member companies specializing in certain types of equipment and services.

A store relighting campaign is also planned for the coming year, including talks and demonstrations before business advancement association meetings, this to be supplemented with direct-mail advertising and contractors' sales follow-up. In this campaign only one district will be covered at a time. At the present time a campaign on grocery stores will also be carried through.

Code School for Toledo Contractors

A Code school has been started by the Toledo (Ohio) Electrical Contractors Association, the first class of which started on Saturday, October 1. The purpose of this school is to discuss the changes in the 1931 National Electrical Code so that all members will be thoroughly informed as to the new National Electrical Code.

Power Company Attitude Towards Code

A further insight into the attitude of power companies toward the National Electrical Code is gained from certain paragraphs in a letter addressed by the Ohio Power Company, Canton, Ohio, to the Ohio Electrical Contractors Association as a result of the latter's resolution in July condemning the use of bare neutral in range wiring and non-metallic surface extension assemblies.

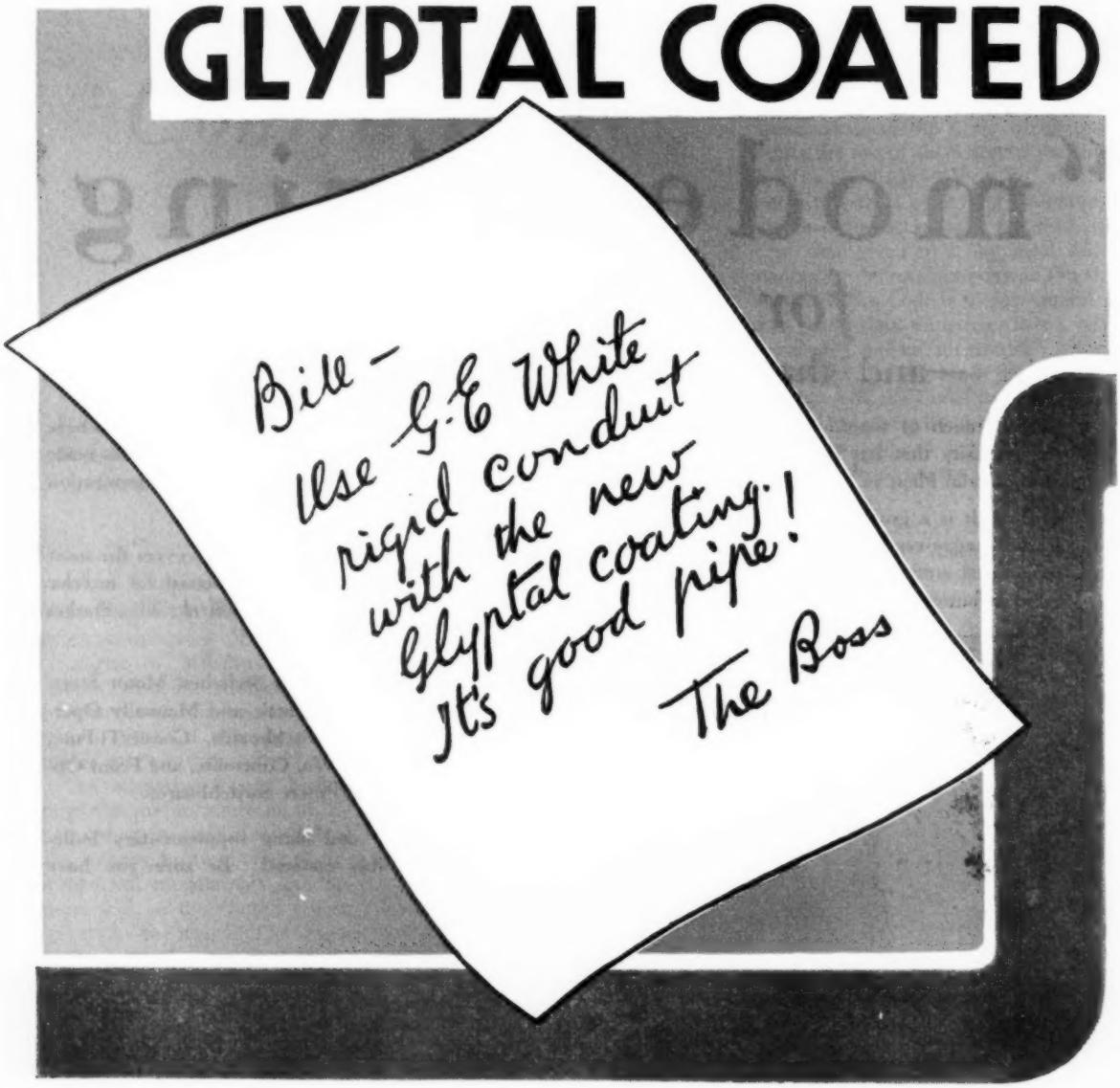
"We note, too," says the letter, "that the resolution states that the practice violates the rules of the National Electrical Code. We do not believe that it does. We know of no specific rule in the Code which prohibits the use of the material we have been advocating. You, of course, know that the Code is not mandatory and has no legal status in Ohio except that given to it by local ordinances or definite state laws. On the contrary, the Code is merely intended as a guide (and sometimes it is a very poor one) to local inspectors. An installation may be made contrary to the rules of the Code, but if it is acceptable to a specific inspector having jurisdiction in a specific territory, there would of course be no violation of the law.

"We note further that your Association condemns the manufacture of any material not listed by the Underwriters' Laboratories. We should like to point out to you that the Underwriters' Laboratories is a private organization conducted for profit and that the Underwriters' ratings have no legal status except where adopted by local ordinance.

"We are wondering whether your Association, in embarking upon such a course of action, is not proceeding along a path that may ultimately lead to your great disadvantage. We feel that there is a good likelihood that such a course of action may lead into difficulties similar to those encountered by Verband Deutscher Elektrotechniker of Germany.

KANSAS CITY CONTRACTORS HOLD OUTDOOR MEETING—Instead of the regular noonday meeting on August 13, the Electragists Chapter of Greater Kansas City, Mo., met at Meadow Lake County Club, where golf was played in the afternoon with the business meeting and dinner held at 6:30 P. M. at the club. Contractors who attended are shown above, left to right, as follows: (standing) W. Wachter; B. R. Nelson; Charlie Burkholder; Messrs. Rhinehart and McQuerry of the Frank Adam Electric Co.; R. W. Hodge; R. B. Randall; John Murray; Frank Seiler, manager, Electrical Survey Bureau; F. E. Geiss; L. Schumacher; F. Stockton. (Seated): F. Morgan; E. L. Clark; H. C. Evans; Guy Burkholder; A. Fromhold; F. Foley; E. Fickie; and W. T. McAuley.

GLYPTAL COATED



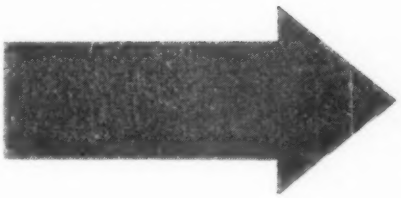
GLYPTAL is a specially prepared, flexible synthetic resin that is waterproof and acid- and alkali-resistant. It also resists heat, fills the pores of the metal, adheres without cracking when the conduit is bent, makes wire pulling easier, and gives the pipe a glass-like finish both inside and out.

GENERAL ELECTRIC

RIGID CONDUIT

MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT

RIGID CONDUIT ▲▲▲



GENERAL ELECTRIC'S easy-bending, long life G-E WHITE conduit is now *still further* improved by a coating of Glyptal, outside and in.

If you buy rigid conduit for *value,* choose G-E WHITE rigid conduit. The old reliable conduit that has proven itself in years of service now offers you the following additional features, *at no increase in price:*

1 — EASY-BENDING (flexible alloy steel)
2 — QUICK-THREADING (clean sharp threads)
3 — EASY-PULLING (glass-like surface)
4 — RUST-RESISTING (against acids and alkalis too)
5 — LONG-LASTING (hot-dipped galvanized)
6 — GLYPTAL-COATED (inside and out)

HUNDREDS of contractors have tried the knee-bending test and have seen for themselves how G-E WHITE makes installation easier. And tests have shown that with the *extra* protection of the Glyptal coating, the already long life of G-E WHITE conduit is extended. • Always use G-E WHITE conduit. Your G-E Merchandise Distributor will supply you, or write to Section C-3310, Merchandise Department, General Electric Co., Bridgeport, Conn.

GENERAL ELECTRIC

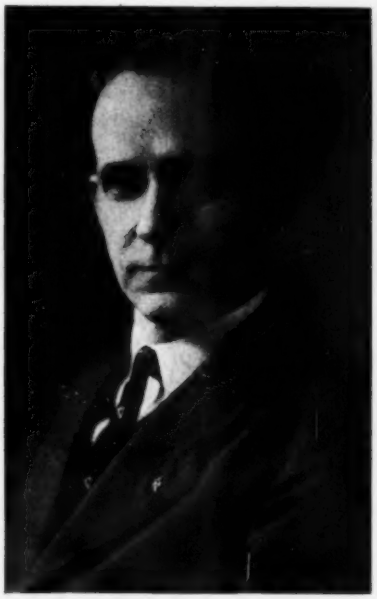
RIGID CONDUIT

MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT

"We believe that it would be much better if all interested parties would cooperate to the fullest extent. We are trying to do this with all progressive manufacturers when working on new developments, but, unfortunately, we have received very little help from the people in charge of the Code. We should, however, like to have and should greatly appreciate the help of the Ohio Electrical Contractors Association in putting some of these new developments into practice. We feel that they are to the interest of our customers and of everyone connected with the electrical industry in Ohio."

The German decision related to the practice of the Verband of granting to certain manufacturers the right to use the letters "V.D.E." as a mark of quality. It was shown that there was only a single sample test and that the products carrying those letters were not necessarily of the highest quality, as the public had come to believe. The case came to a head when the Verband sent out letters warning the public of the danger of using goods without the letters of the Verband.

The Ohio Electrical Contractors



THIRTY-SEVEN YEARS IN BUSINESS—E. C. Bennett & Co., 932 Redick Tower, Omaha, Nebr., is celebrating its 37th anniversary in the electrical contracting business. E. C. Bennett, head of the company, received his early electrical training in the Boston Edison Electric Co., and the Chicago Edison Electric Co. In the last 34 years Mr. Bennett has wired many of the large buildings erected in Omaha.

H&H SCREWLESS HEATER PLUGS

Above: Screwless Switch Plug No. 7762. Made extra serviceable by patented switch mechanism, operating with exceptionally long 2-point break, with current-carrying and current-breaking capacity away in excess of normal needs. . .

At right: Screwless Plug No. 7760 without switch. Having the same features of spring clip fastening as No. 7762.

At left: CORD SETS with the new screwless plugs move fast across Dealers' counters. Assembled with improved plug cap and Rockbestos Heater Cord. The plugs sell the sets!

ALTERNATE heating and cooling, twisting and pulling *loosens* holding screws in ordinary plugs so they soon fall apart —useless. These new plugs stay together and stay USABLE.

NO HOLDING SCREWS to loosen and lose out of ARROW *Screwless* Heater Plugs. Plug sections are held together by SPRING CLIPS—self-adjusting to temperature changes, yanks and twists.

EASIER TO WIRE than screw-held plugs. To take apart, simply slip off spring clip at bottom and collar spring at top. *Convenient!*

NEWLY DESIGNED of lustrous BAKELITE, modern, attractive, *appealing to your customers.* Ask for catalog data-sheet —fully descriptive.

HART & HEGEMAN DIVISION

THE ARROW-HART & HEGEMAN ELECTRIC CO.

HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890

OLD FIRM USES LATEST METHODS: On the left is C. F. Santee, with his partner in the Miller-Santee Co., Rockford, Ill., one of the oldest electrical contracting companies in the city. They concentrate on large commercial and industrial wiring and lighting installations, and are especially strong on thinking up short cuts in hard and unusual situations.

Association has referred the letter to its code committee.

Ohio Association Section Directors

The articles of incorporation and constitution and by-laws for the Ohio Electrical Contractors Association have been approved, and the state of Ohio has been divided into eighteen sections for the purpose of selecting the board of directors. The following members were selected: District No. 1, C. F. Hammer; No. 2, William Raney; No. 3, J. B. Conklin; No. 4, H. T. Uhl; No. 5, H. L. Moyer; No. 6, F. A. Weible; No. 7, no trustee; No. 8, E. H. Strasser; No. 9,

BUILDS VOLUME ON ELECTRICAL SERVICE: R. H. Pow, owner of the Euclid-Taylor Electric Co., Cleveland, Ohio, has developed a nice business by specializing on maintenance on apartment houses, industrial plants and radio installations. Careful attention to each job has resulted in his retaining his old customers and adding new ones through recommendations.

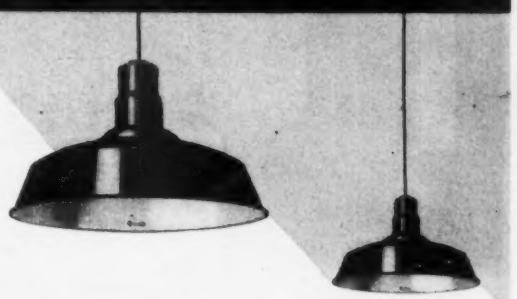
for Efficient Lighting—

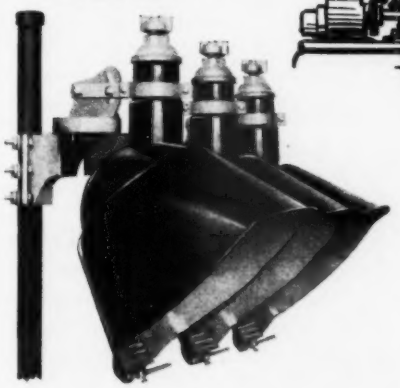
INDOOR OR OUTDOOR

QUAD REFLECTORS

Note: Unique features of "Quad" Reflector Line: Q-D socket fittings—sliding adjustable sockets. In workmanship, quality, and convenience the unsurpassed reflector line.

RLM Standard Dome Reflectors





"Quad" Open Type Flood Light with focusing beam projector, chromium finish on copper, adjustable brackets of cast aluminum; single, double, triple, and multiple mounting.

By living up to its "Quad" four-square policy of quality, convenience, economy and quick response to new demands, this line of lighting units has won the confidence and preference of the electrical industry.

For the industrial field there is a complete "Quad" line of reflectors of designs and sizes suited for every requirement, including RLM Standard Dome Reflectors; Special Dome Reflectors with Q-D socket fittings; Shallow Bowl and Angle Reflectors with sliding adjustable sockets, keyless or pull socket; also pendant, ceiling and side wall, direct, indirect and semi-indirect units.

For outdoor use there is Q-D Rectangular Angle Reflectors, and the New Open Type Flood Light units with adjustable brackets and focusing beam projectors for mounting on pipe standards, wood poles, or walls.

"Quad" reflectors, whether for indoor or outdoor use, are porcelain enameled in our own plant, where materials and methods under our control insure the highest quality of enameling with uniform light distribution.

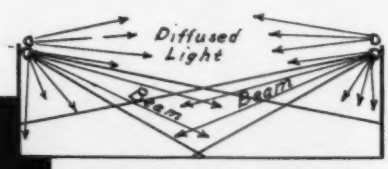
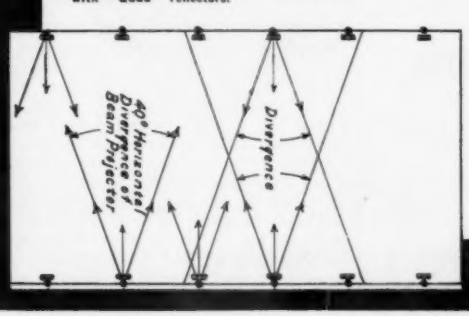


Diagram of football field efficiently lighted with "Quad" reflectors.



The "Quad" catalogue is a valuable handbook of illuminating data. See that a copy is conveniently available for frequent reference. Catalogue and supplement gladly sent on request.

QUADRANGLE MANUFACTURING CO.

30 S. Peoria St., Chicago, Ill.

O. O. Neddersnip; No. 10, R. M. French; No. 11, A. B. Weinfeld; No. 12, H. F. Brennan; No. 14, no trustee; No. 15, R. J. Hocker; No. 16, no trustee; No. 17, W. F. Walters; No. 18, C. S. Zink, and No. 19, C. Lesher.

The trustees so selected will serve until the annual meeting and election of trustees by the association, which will be held during the month of February, 1932.

New A.E.I. Members

The following applicants have been accepted into the A.E.I. since the publication of the list in the September issue:

FLORIDA

Jacksonville:
Henderson's Electric Shop
J. R. Huddleston Electric Company
Miami:
J. C. Willis

GEORGIA

Macon:
Morris Putzel, Inc.

NEW JERSEY

Grantwood:
Charles Beck, Inc.

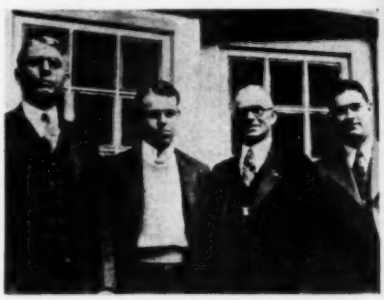
TENNESSEE

Nashville:
Anderson's Inc.

Wholesalers to Hold Trade Practice Conference

The Federal Trade Commission will hold a trade practice conference with electrical wholesalers in Cincinnati, Ohio, on November 11.

According to the announcement from the National Electrical Wholesalers Association, at least twenty-

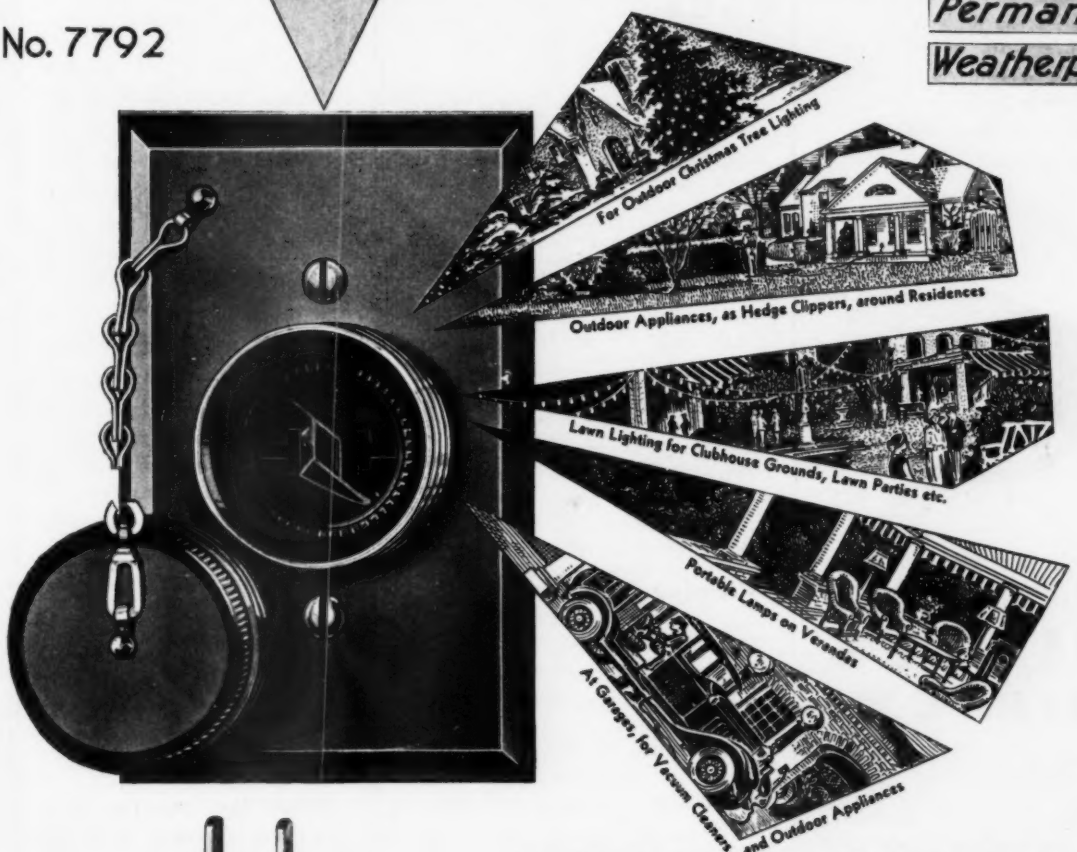


FAMILY FOURSOME BUILDING UP BUSINESS:—Here is a situation not very often found in the contracting establishment. On the left is F. L. Sigler, next is his son Arthur L. Sigler, followed by Geo. W. Sigler, and his son Maurice. Frank and George are brothers and are training the young fellows to take care of the business. Arthur's specialty is lighting and lamps while Maurice is studying radio. This company does a very fine combination merchandising and construction business with commercial wiring predominating.

Arrow New Outdoor Flush Receptacle

No. 7792

Permanent Weatherproof



No. 7793

PROVIDES a permanent Convenience Outlet for plugging-in outdoor lighting connections or appliances. Saves your customers the nuisance of temporary wiring from the inside. Sturdily designed to weather the action of rain, snow, ice and continuing dampness... The finish—cadmium on brass—defies rust and corrosion. When not in use, a metal cap screws over receptacle opening for protection from weather. When connected, the standard attachment plug cap is covered with separate metal cap (No. 7793) which screws onto flush plate. A rubber mat fitting under the plate completes the weatherproofing. ¶ For Christmas lighting of evergreen trees, for decorative lighting of lawns, for porch lamps and electric appliances used outdoors, specify No. 7792 for convenience *with permanence.* » » » »

ARROW ELECTRIC DIVISION

THE ARROW-HART & HEGEMAN ELECTRIC CO.

HARTFORD, CONN.

DO LARGE AMOUNT OF GOVERNMENT WORK:—The Sullivan Phillips Electric Construction Co., New Orleans, La., has been in the contracting business 20 years and specializes in large work along the lines of power and lighting. Left to right the executives are: Edw. P. Sullivan, L. B. Lindsey, Edw. P. Phillips A recent job of which they are justly proud is the complete electrical installation for the gates on the lock system, installed by the Orleans Parish Levee Commission in conjunction with the Federal Government Mississippi River Spillway Program. This will complete the famous "Water Detour" which will be a relief to the city of New Orleans. This company has done 30 or 40 city jobs.

seven resolutions will be submitted. Among the practices proposed for discussion will be the following: Interference with a competitor's business; selling goods below cost; price discrimination; commercial bribery and secret rebates.

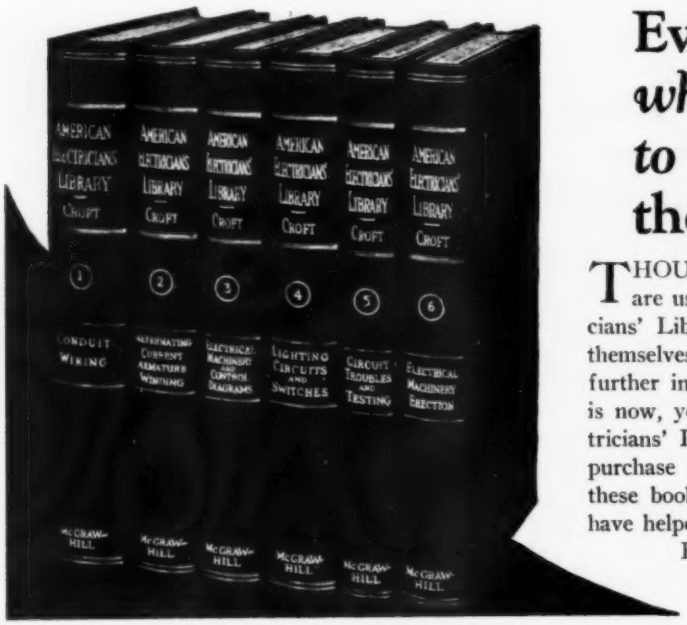
Creating Business Out of Fire Risks

The Electric League of Columbus is making an effort to create wiring business through an appeal by mail to 917 commercial and industrial building owners, asking the question, "Does your fire insurance rate include charges for electrical deficiencies?"

The league points out that a building insured for $100,000 might have an additional premium of five per cents per hundred, $50.00 annually, because of electrical defects which might be cleared up by an electrical contractor for only $200.

With the message the league endorsed the list of 132 electrical fire causes which will be found on page 23 of this issue.

The league reports that it has had some interesting reactions from the fire insurance companies which has given the league the names of several policy holders to whom they want the literature sent.



Every electrical man *who has wiring jobs to handle* should have these books . . . .

THOUSANDS of men in every part of the country are using the six big books of the American Electricians' Library to make their work easier and to push themselves ahead. If you, too, are determined to go further in electrical work, no matter what your position is now, you are invited to examine the American Electricians' Library for 10 days without any obligation to purchase it. Furthermore, if after you have examined these books you decide that they can help you as they have helped countless others, you can have Braymer and Roe's *Rewinding Small Motors* absolutely *free.*

What the six big volumes of this library offer you!

TERRELL CROFT prepared this subscription library for practical electricians. The six volumes bring to you exact step-by-step directions for the installation of every type of conduit wiring job—they tell you how to handle every kind of lighting circuit and switch problem—they give you short cuts to saving time on maintenance routine—they give you useful tips on electrical machinery erection — they offer you practical, clear explanations of all kinds of A.C. armature winding jobs—they bring you a thousand armature winding, electrical machinery, and control diagrams—they show you the surest, quickest methods of locating and remedying circuit troubles. They cover the countless problems you are confronted with daily.

More than 1,000 wiring diagrams

The thousand wiring diagrams in these six books are alone worth the price of the entire library to any practical electrician. Many of these diagrams are unobtainable elsewhere; many more are very hard to get from any other source; all of them are much clearer and more helpful than most wiring plans available. They include:

300 ***lighting circuit diagrams, and a number of other practical working drawings***

300 ***conduit-wiring diagrams***

9 ***single-phase armature winding diagrams***

52 ***two-phase armature winding diagrams***

100 ***three-phase armature winding diagrams***

570 ***electrical machinery and control wiring diagrams***

This Library contains all the useful hows and whys and wherefores for wiremen, trouble shooters, armature winders, electrical maintenance men, and electrical contractors.

Terrell Croft's
American Electricians' Library

6 Volumes—over 2,000 pages—fully illustrated

$1.50 in ten days and $2.00 monthly for 8 months.

LET us send you these fact-packed books for ten days' free examination. There is no charge for the examination—no obligation to buy the books unless you want them. These books have helped, and are helping, so many men that it is no longer a question of "Will they help you?"—the question is "Will you let them help you?"

Terrell Croft's books on practical electricity are known and respected by experienced electricians throughout the world. This latest Croft library is packed full of practical data, diagrams, kinks, short cuts, helps—to supplement his previous books. These six books are written especially to help wiremen, trouble shooters, maintenance men, armature winders and electrical contractors.

The six books cover the whole wiring field. They give you concrete usable details about new and better ways of armature winding, conduit wiring, circuit testing, etc., telling you what experience has proved to be best, showing you what to look out for, what to avoid—outlining for you, step by step, the surest, quickest way of locating troubles and of remedying them.

We could fill several pages with arguments telling how so many thousands of men have profited by the American Electricians' Library. But we'd like to leave it to the books—and we'll stand or fall on the outcome of your examination. You will agree that this is a liberal offer; and, frankly, we couldn't afford it if this examination offer didn't usually convince. We know how good these books are—we want you to see them for yourself.

A *Valuable Book Absolutely FREE!*

After you have seen these books at your leisure—after you have used them in your work—decide whether or not they are going to help you. Then, return the books or remit only $1.50 and then $2.00 a month until $17.50 has been paid. On receipt of your first payment Braymer and Roe's *Rewinding Small Motors* will be sent you absolutely **free.**

FREE!
if you act now

Braymer and Roe's REWINDING SMALL MOTORS comes to you absolutely free if you act now in getting your AMERICAN ELECTRICIANS' LIBRARY. This book will give you much practical information about rewinding all types and designs of fractional horse-power motors.

McGRAW-HILL
FREE EXAMINATION COUPON

McGraw-Hill Book Co., Inc., 370 Seventh Ave., New York.

Gentlemen: Send me for 10 days' free examination, all charges prepaid, the AMERICAN ELECTRICIANS' LIBRARY, 6 volumes. If I find the books satisfactory, I will send you $1.50 in ten days, and $2.00 a month until the Special Price of $17.50 has been paid. If they are not what I want I will return them. Upon receipt of my first payment you agree to send me free a copy of *Braymer & Roe's Rewinding Small Motors.*

Signature .....

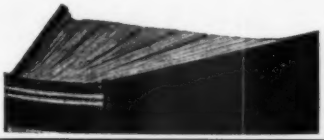
Residence Address .....

City and State .....

Firm or Employer .....

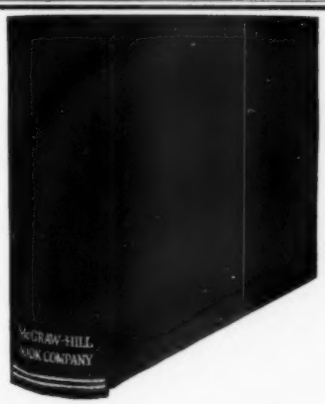
Occupation E.C.10-31

Mail this coupon →



JUST PUBLISHED!

The most important McGRAW-HILL Book for practical electrical workers *in ten years!*



Only rarely are we privileged to offer to any industry so thorough, so up-to-date, so helpful a manual as this. When such a book is published it enjoys long life, as a growing body of men use it and spread the word that it gives the practical help they need in the handy, compact form they like.

Handbook of Industrial Electricity

by MAX KUSHLAN,
Electrical Engineer

525 pages, 4½ x 7, over 600 illustrations, diagrams and tables, flexible, $4.00

GLANCE over the section headings listed below. These are only the main general headings. Under each, all of the many practical divisions of the work are covered. No matter what the job is, it's in this handbook, covered from the standpoint of theory, principles, equipment, methods, standards and specifications, testing, inspecting, repairing.

1. **Electricity as a Source of Power**
2. **Electrical Wiring Devices and Methods**
3. **House-wiring Installations**
4. **Wiring in Public Buildings**
5. **Outdoor Installations**
6. **Industrial Installations**
7. **Testing**
8. **Inspection and Maintenance**
9. **Estimating Electrical Work**
10. **Handy Tables**

THE Handbook of Industrial Electricity has been organized and prepared by a master electrical worker—a man who for twenty years has handled the practical details, large and small, of design, construction, testing, and estimating, in power and industrial installations of many kinds. Where his writings have appeared in print before, the data and methods described have often been accepted as standard by leading contracting, manufacturing and utility companies.

The book is expressly planned as a reference book for electricians actively engaged in installing and maintaining electrical equipment in residential, commercial and industrial buildings and outdoors. It answers literally hundreds of questions on the methods of wiring, inspecting, and maintaining lighting, machinery and power installations of all kinds.

Technical and mathematical terms are either avoided or, where used, are clearly defined and illustrated by practical examples. Standard practice is demonstrated by liberal reference to accepted rules and specifications, by over 500 illustrations and diagrams and 118 practical tables.

Space does not permit a really full and adequate description of this book. But we will gladly send a copy for 10 days' free examination on receipt of the coupon below. Then, after you have had an opportunity to look it over thoroughly, send us only $4 in full payment, or return the book if you think it isn't worth many times that amount to you. At least see this helpful new book. Send the coupon now.

Special attention is given to methods of estimating, reading plans and diagrams, classifying equipment, getting costs of material, labor, etc., with everything made clear by practical examples, sample forms, useful tables, etc. The contractor will also be interested in the valuable helps on electrical advertising practice.

Beside the standard indoor and outdoor installations, many such up-to-date topics as radio circuits, electric heat applications, wiring of gas-driven vehicles, electrical equipment used in aviation, etc., are covered in satisfyingly detailed form.

See it for 10 days FREE
Send the coupon

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McGraw-Hill Book Co., Inc., 370 Seventh Avenue, New York, N. Y.

Send me **Kushlan's Hand Book of Industrial Electricity, $4.00,** postpaid for 10 days' free examination. I will return the book in 10 days or remit for it then.

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Address .....
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Position .....
Company .....E. C. 10-31

Model Village Has Wiring Features

A model village of six homes erected by the L. S. Donaldson Company in its department store in Minneapolis has been wired under the auspices of the Minneapolis Electrical League far in excess of Red Seal requirements.

Among the features of the wiring design, besides adequacy, were circuit breaker panelboards, mercury switches in some rooms in place of ordinary toggle switches, door switches for closets, Mark-Time switches where only momentary light was required and range outlets.

Warren Oliver

Warren Oliver, proprietor of the Oliver Electric Co., Spokane, Wash., died on August 5 at his home at the age of 64.

Mr. Oliver was one of the first electrical contractors and dealers in Spokane, having started his own business in 1895. Prior to that time, he was employed by the local gas company.

REDUCES OVERHEAD AND INCREASES BUSINESS: Charles Menge, when he moved from the business district of Hoboken to the top of the hill on the Paterson Plank Road at Jersey City, N. J., was able to reduce his overhead 50% and at the same time he managed to increase his business. Menge explains that regardless of the move he is still as close to his old customers as their telephone. In the new low rent location he uses a large sign to draw transient trade. There is also a reproduction of this sign in his telephone ad. As he is located on a main thoroughfare en route to New York this sign gives him more publicity and work than he had in the older more expensive location. Mr. Menge is on the left in the photo. Center, James Barilotti and right, Victor Genarro, the remainder of the force being out on jobs.

A ROLL O' TAPE

Electrical flashes gathered among the Big Wire-and-Pipe Men by

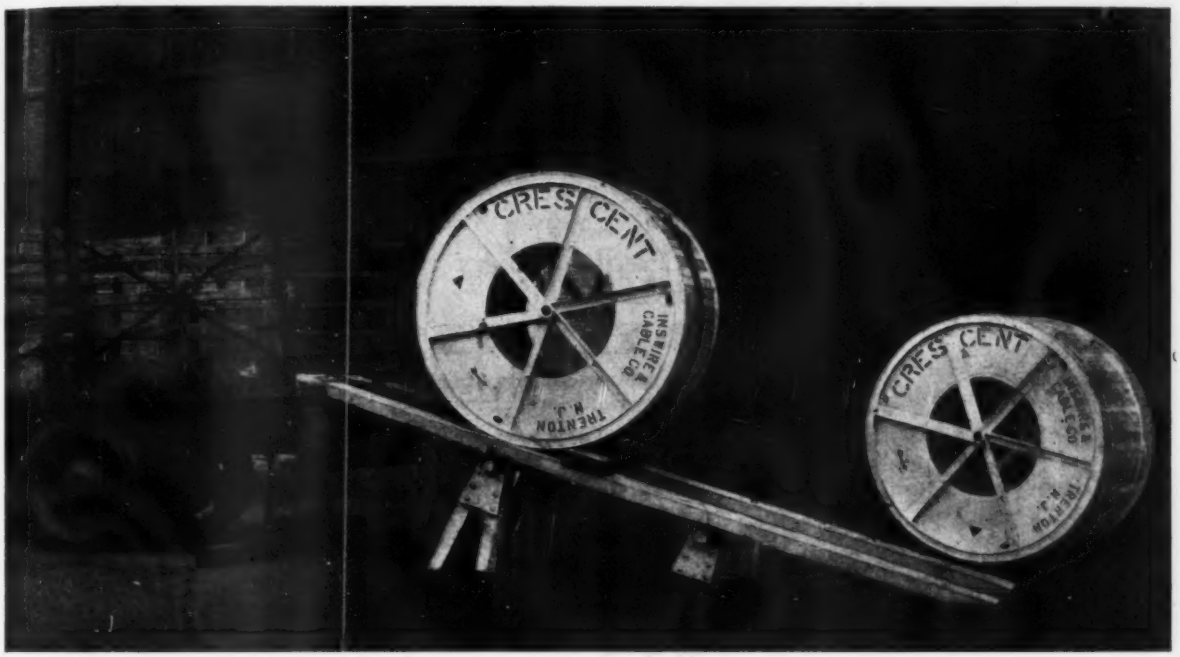
Coit A. *(Duke)* Smith
and Walter Holmes
Field Editors, ELECTRICAL CONTRACTING

SO many different circuits (light, power and an elaborate system of alarms) are going into the new Federal Reserve Bank Building at Pittsburgh, Pa., that the conduit was painted in different colors to aid identification. The Fort Pitt Electric Company is doing the work.

TWO competing contractors came into the place of business of a Pittsburgh wholesaler the other day and asked about prices on materials for a job on which they both were bidding. During the visit it developed that they were to get prices and give them to a third contractor who was also competing for the job. The latter contractor and his men, it seemed, were taking care of the business of the other two while they were in Pittsburgh getting prices. That's cooperation.

IN announcing the opening of the new store of J. M. Fried, Electragist, the Vicksburg (Miss.) Herald said: "Mr. Fried has played a prominent part in our community within the past several years rendering that unselfish service which asks for no reward, but whose reward is reflected by such service." General chairman of the Vicksburg Centennial Celebration in 1925, in charge of important Red Cross work during the 1927 Mississippi flood and president of the Vicksburg Chamber of Commerce in 1929, Mr. Fried has earned his place as a "leading citizen."

THE Jaggar-Sroufe Co. is one of the largest electrical contractors in Portland, Ore. Talking with J. H. Sroufe one day recently, we were surprised to learn that big as they are, they yet do any amount of small work, from a single outlet up to small houses and apartments. By this it is not meant that they can go out into the market and compete with the curbstoner when it comes to houses and the like where bids are asked. All their small stuff comes in over the phone as the result of their name and reputation—a kind of work that they can take and then charge what



A DAILY SCENE *at* THE CRESCENT PLANT

CRESCENT PRODUCTS

"Crescent" National Electric Code Rubber Covered Wire and Cable.
Intermediate Grade Rubber Covered Wire and Cable.
"Imperial" 30% Rubber Covered Wire and Cable.
"Crescent" Lead Encased Wire and Cable.
"Crescent" A. B. C. Armored Bushed Cable.
"Crescent" Lead Covered Armored Cable.
"Crescent" Flexible Metallic Conduit.
"Crescent" Varnished Cambric Cable, Lead Encased or Braided.
All kinds of special wires and cables.

TRADE MARK

≡*loading* LEAD ENCASED VARNISHED CAMBRIC CABLE

Contractors, Sales Representatives and Jobbers' Salesmen may have the fullest confidence in the facilities and equipment of the Crescent plant to meet conditions prevalent in any field to-day requiring high grade insulated wire and cable.

Orders are scheduled with the utmost care, and delivery promises are based on known performance in the factory. The complete line of Crescent Products, as listed here, represents many years of intimate acquaintance with the needs of the wiring industry.

"If it's Insulated Wire—wire Crescent"

CRESCENT
Insulated Wire and Cable Co.
CRESCENT ARMORED WIRE CO.
TRENTON N. J.

GUILD DIRECTOR: Fred Rossiter, directing manager for the twentieth district (N. J.) of the Electrical Guild of North America. When time will permit Mr. Rossiter hurries to the office of his contracting business and signs checks, etc. Then back to guild work.

they consider to be a fair and reasonable price. In normal times they will have from three to five men on this kind of work all the time. These men are what you might call small job and repair specialists. Through practice at it, they become extremely proficient in going in, sizing up the job, getting at it and getting done before the average wireman who works on larger installations would hardly get started.

J. SCHOENBACH, Brooklyn, N. Y., is doing a floodlighting job on the Statue of Liberty and installing higher capacity lights in many places. The old lady's sturdy form divine will soon bask in the cold all revealing white light thrown from the corners of the star shaped base of the statue. Picture it for yourself, on a background of black harbor water and star powdered sky.

EDWARD JOY, Syracuse, N. Y., in a bank remodeling job is installing a holdup protection system that not only calls out the police but throws gas at the stickup man. This renders him unconscious for twenty minutes—long enough for the Syracuse police department to get on the job. The gas button must be pressed twice to operate. This to avoid accidental gassing of customers.

THE Electrical League of Youngstown, Ohio, is cooperating with builders of homes using Red Seal wiring. Such newly completed homes are given flood lighting, signboards, advertising, and placards throughout the house calling attention to the electrical conveniences. Three thousand visitors inspected the last house so featured.

I RECENTLY learned of a neat piece of selling on the part of Jack Sendak, Gary Electric Co., Gary, Ind. There appeared in the store a man who had been looking at fixtures in a chain store,

Only one answer for those "High-Hat" Prospects of yours

C-H BUL. 4131 STANDARD DUTY SAFETY SWITCH

"Equal to many Type A switches" is the general opinion of this C-H Safety Switch. Quick make and quick break plus one-piece clips give the 4131 switch unusual life. Many other features plus rugged construction typically C-H. Capacities 30 to 400 amps. at 250 volts; 30 to 200 amps. at 575 volts.

NEW C-H 9115 2 H. P. MANUAL STARTER

Built to C-H Motor Control Standards; not a small starter "made heavy." This new starter brings *big* motor protection and direction to small motors (2 h.p. or less). Has twin-break contacts. Uses C-H Thermal Overload Relay —same as in large C-H Control— which cuts motor off at danger point, drives motor to safe limit. Relay is reset with starting handle —nothing to renew—no delicate parts anywhere.

THE scarcer wiring jobs become, the harder you hunt for them. And because you and the other contractors go after jobs so earnestly, your prospects have gone "high-hat" in their demands for better work and materials. There's only one way out for you, and only one answer for those high-hat prospects—supply them with Wiring Devices and Safety Switches that are built to stand up and give you something to boast about.

To prove to yourself that the C-H Line is full of sales-making features, just read the brief descriptions below the few typical items on this page. There you will find some of the numerous sound reasons for the sales success of C-H Safety Switches, Meter Service Switches and Wiring Devices. Such features represent design and construction learned in the 40 years' experience C-H Engineers have had in controlling electric current. And that Engineering ability is matched with equally sound merchandising ability—C-H quality is advertised and recognized wherever you do business.

Call on the C-H distributor in your nearest principal city. Probably he can give you a new slant on getting business today with the C-H Line. CUTLER-HAMMER, Inc., *Pioneer Manufacturers of Electrical Apparatus,* 1258 St. Paul Avenue, Milwaukee, Wisconsin.

The NEW C-H Duplex Receptacle with Patented Finding Ring

In the NEW C-H Duplex Receptacle, mechanical and electrical features are treated separately, as they should be. For instance, pressure is supplied over entire contact area by non-current-carrying steel springs—not a compromise between a spring and a current carrier . . . Shifting, pitting, and burning are eliminated . . . New finding ring makes plug insertion easy even in the dark . . . Body is polished Bakelite, very shallow, with improved plaster lugs . . . A quality device, yet priced in line.

CUTLER HAMMER

Wiring Devices and Safety Switches for Every Service

(A-3989)

but was a little doubtful of their quality. Jack saw a real chance and started out from a different angle by making a lot of fuss about a certain bracket he was proud of. In five minutes they were on their way to the man's house with the bracket. While it was being shown against the living room wall the man's wife strolled in. "How much is that?" she demanded. "Never mind the price," said her husband, "Do you like it?" "I'm crazy about it," she replied, and on the basis of this little demonstration Mr. Sendak sold the couple $170 worth of fixtures, not a bad hour's work.

SAUNDERS BENTE, head of the Waukegan Electric Co., Waukegan, Ill., has done an unusual number of large jobs, including office buildings, schools, auditoriums, industrial plants and theatres. One of his methods of cashing in on this record is a big sign listing all the jobs. It is headed: "Our Best Advertising Is the Work We Have Done," and was first used with telling effect at an exposition in Waukegan where various firms were displaying their wares. Bente couldn't very well fill a booth with pipe, wire, etc., so he made the sign his exhibit.

TEN contractors belong to the Electrical Contractors Association of Malden, Melrose, Medford and Everett, suburbs of Boston, but what they lack in numbers they make up in effort. They are attempting to sell the work of experienced high-grade companies. Their latest activity is a small advertising pamphlet giving householders suggested minimum wiring specifications.

THE M. J. Walsh Electric Co. of Portland, Ore., are in line for a medal of some kind for taking the time of depression to fit themselves out with entirely new and handsome quarters costing a good, round sum of money. Perhaps as a reward for their courage and confidence, it was reported by Tom Ryan that all their 15 wiremen are busy every day on jobs which consist principally of small residences. Their former location was 106 4th St. in a new decadent retail district where they had maintained an electrical store along with the contracting business. On September 1 they moved to 149 12th St. on the edge of the high class retail district. They will not keep a general line of electrical merchandise in the new place, however, but will confine their efforts to lighting fixtures and the contracting end. They have some 10,000 sq. ft. in the new place.

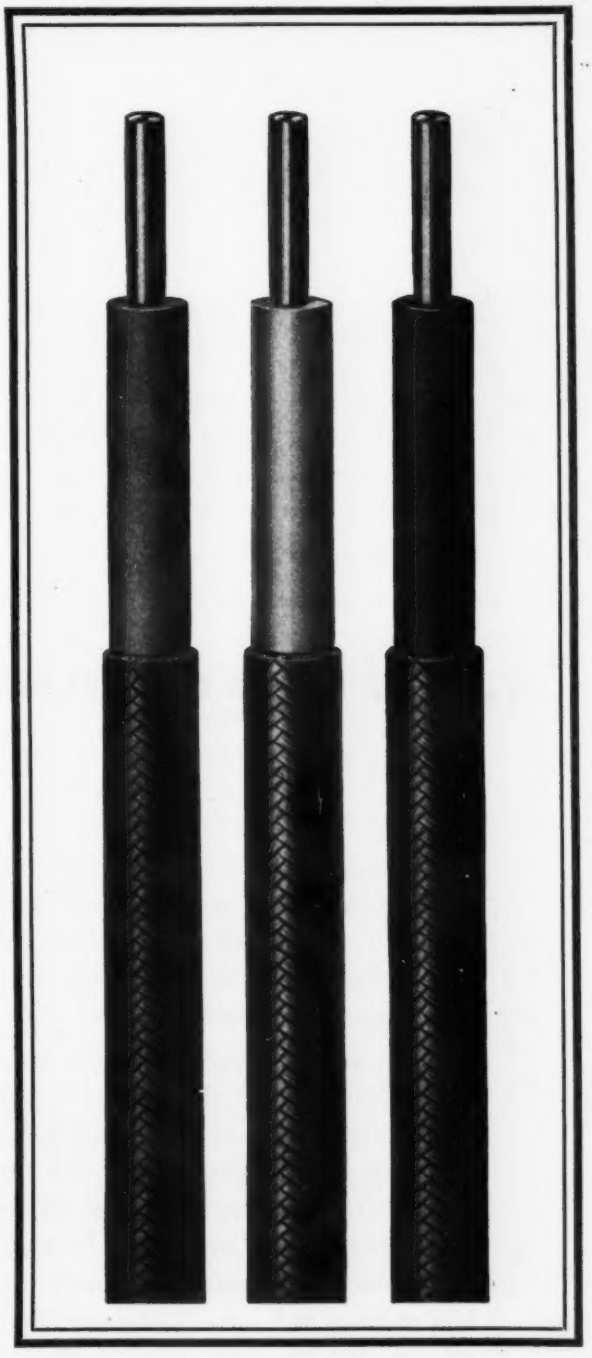
J. P. HELD, Utica, N. Y., had a notion that there was plenty of work for a contractor, if he could only show the customer how he could profit through having work done. Accordingly he went to one plant, an old customer, looked over the lines and found plenty of grounds. Then he called on the owner of the business at

G-E CODE WIRE . . . .

now has

COLORED RUBBER INSULATION

for Grade Identification



NOW the color of the rubber insulation on G-E Code Wires immediately identifies the grade without the necessity for long and expensive laboratory tests. BLACK rubber is used for Code grade, RED for Intermediate grade and GREEN for 30% grade.

In these new colored rubber insulations all of the desirable characteristics of the former compounds have been retained. In addition, anti-oxidents have been added which increase the life of the rubber and give you in the three commercial grades of G-E Code Wire "performance tests" compounds.

The insulation is as free-stripping as the Underwriters' rules permit, over-all diameters are the minimum allowed, braids are tighter and closer, and the slicked finish, while providing ease in installation, does not become "sticky" or "tacky" in hot weather.

G-E Code Wire gives you highest quality and greatest workability, with the additional advantage of enabling you to prove on sight that the grade specified has been installed. For all these advantages, you pay no more than before. See your G-E Merchandise Distributor, or write Section W-3210, Merchandise Department, General Electric Company, Bridgeport, Connecticut.

GENERAL ELECTRIC

CODE WIRE

MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONN.

"...and then came an electrical contractor riding a bicycle!"

A prominent business executive was building his house. He told his architect that he wanted a good job. Of course, he wanted it at a "reasonable" price. Specifications were drawn up—bids submitted.

When the bids were in, the low bidder for the plumbing work paid the owner a visit. He started to sell him on the idea of a *quality* job. He pointed out that for a few dollars extra, one could have all brass pipe that would last a lifetime. By appealing to the owner's pride, the plumber sold him on more and better plumbing fixtures all around...The owner liked the idea. Incidentally, the outlay for plumbing work was nearly doubled.

Enter the electrician!

Then the electrical contractor appeared on the scene.

Without any suggestion on the part of the builder he proceeded to show how it was possible to save a few dollars by eliminating the underground service. His next move was to recommend reducing the number of circuits and outlets.

"Nonsense! Don't need 'em," he grumbled to the owner. "It's a new-fangled idea and it just costs money . . . And conduit?

Ridiculous! Might use a flexible conduit but knob and tube would do and is cheaper." All in all, this contractor proposed cutting *his* bill in half! (And, incidentally, the proposal meant halving the usefulness of the installation to the owner—but this contractor was not concerned about *that*.)

But that's not all the story.

The enterprising plumbing contractor arrived in an expensive, high-powered car. The electrician pedalled up on a bicycle!*

To the reliable, business-like electrical contractor of today this story may seem almost unbelievable. Needless to say, such an incident is foreign to the practice of a first-class contracting business.

The responsible, service-performing electrical contractors are taking advantage of an almost unlimited quality market. These business-wise contractors no longer regard a wiring job as merely a matter of time, materials and costs.

They see in every new job an opportunity to preach the gospel of adequate and quality wiring. In so doing, not only do they create good substantial business for themselves—but they also render a very real service to their customers. Obviously, such contractors are the successful ones.

Easy to sell "convenience"

Adequate wiring is becoming easier to sell. More and more electrical appliances are being used. More and more people are *demanding* electrical convenience in the form of numerous outlets, switches and circuits.

The cause of adequate wiring has been supported by Graybar from the beginning. To the wide-awake contractors who see a real future in this cause, Graybar is proud to offer its continued support—whether that support be in the form of educational publicity, or as a source of electrical materials backed by a 62 year reputation for quality.

**The incident on which this story is based was taken from a letter published in the* Live Wire, *of the Electrical League of Pittsburgh.*

noon on Saturday when all power was shut off. Taking the customer over to the meter he pointed out to him that his meter was still running merrily along on account of numerous grounds in the system. Of course he got a job. A little later he sold the firm on the idea of installing general lighting in some sections of the plant, and there is still more work in sight. Held now makes a practice of giving free inspections in plants and showing customers how they can save money through having electrical work done.

AT night when looking up at the glass tower of the world's tallest building, The Empire State, New York City, and noticing the enormous glass enclosed tower that runs to the 103rd floor I have pictured it as concealing lights of large wattage. Much to my surprise when I got up there behind the scenes and saw the job done by L. K. Comstock & Co. I found that series of small lights of the size used on Christmas trees furnish all the illumination.

DESPITE the depression, the Racine Electragists found time to have a little fun and made merry at their annual picnic held August 28. F. H. Patrick, secretary of the Racine Chapter of Electragists, stated that the picnic was the best ever held since the association started.

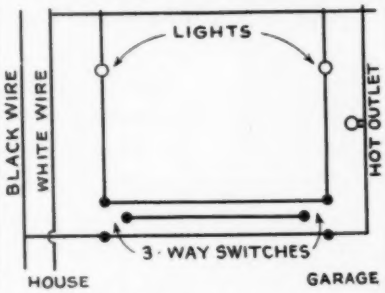
ALEXANDER FISHER, manager of the Belmont Electric Co., New York, N. Y., is a true believer in adequate wiring. At his desk are three telephones—two outside and one intercommunicating. There is also a complete call system to him from the desks of almost every person on the staff. Another electrical feature is that doors from the reception to the main or private offices open only when the girl at the information desk pushes a button which unlocks them. With the aid of this device considerable time and annoyance is saved by preventing the entrance of undesirable persons.

NEW JERSEY CONTRACTORS ON FISHING TRIP—A fishing trip was recently made to Barnegat Bay by the members of the Master Electricians' Association of Elizabeth, N. J. Leo McGann, public service inspector, is shown at the right in the picture above, with the 10½-lb. fluke, winning the prize money. At the left is shown Messrs. Boroff, Waldo and Kenser. Joseph Waldo, president of the Jersey State Electric Co., caught an 8½-pounder on the trip, which probably is the one shown in the picture. The trip ended with a shore dinner at Keyport.

PRACTICAL METHODS

Garage Wiring Economy

Oscar Frykman, chief electrical inspector of Minneapolis, offers the following diagram for economically

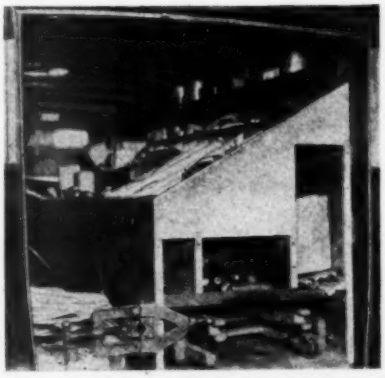


providing a light on the house and one in or on the garage, and a receptacle in the garage that is hot at all times.

Instead of using five wires in ¾ in. conduits, the contractor can use this system and only four wires in ½ in. conduit.

Special Trucks for Special Work

The Carlson Electric Co., Youngstown, Ohio, has three types of delivery trucks: General delivery, special



INTERIOR OF SERVICE TRUCK.

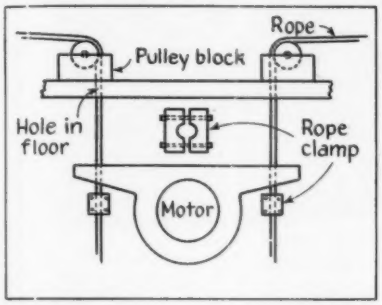
heater and range, and service truck. The illustration shows the interior of a service truck. Two hundred small items are kept in the shallow compartments at the top. Long and bulky objects occupy the space below, including an 8 ft. extension ladder at the bottom. On the shelf at the left

side of the truck, oils, compounds, etc., are kept in glass bottles. Wide rubber bands cut from old inner tubes are placed around the bottles to prevent breakage.

Certain trucks are set aside for heater and range work because of the time that is saved in loading necessary supplies.

Mounting Ceiling Motors

When mounting heavy motors on the ceiling, difficulty is frequently experienced in getting the motor to line up with the holes in the frame so that it may be bolted on. Langdon



& Hughes, Utica, N. Y., are able to mount a 150 h. p. motor in record time by the following method:

Holes are drilled through two of the diagonally opposite motor frame bolt holes into the ceiling and to the floor above. Rope is then let down through the drilled holes to the motor below and the motor pulled up. As the ropes run through the frame holes it must be in line. Bolts are run through the holes not occupied by the rope and the motor is made fast on its frame. Rope is then withdrawn and the other two bolts fastened in. Floor holes are then plugged and may be used again when the motor is taken down.

When the space on the floor above is occupied by benches the rope is run over pulley blocks as shown. Where space permits a frame is erected and the block suspended therefrom.

A Time Saver on Wall Fishing

When conductors are to be carried from the cellar to outlets in the walls or ceiling in residence remodeling, the work of fishing is often slowed up by the excess mortar which sticks out between the bricks, as well as plaster and other obstructions on the other side. Thus considerable time

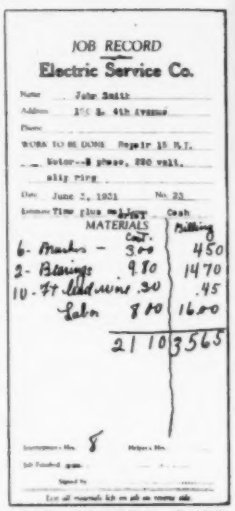
is wasted unless a special method is used.

The Marks Electric Co., Chicago, solved this problem by using a suitable length of fine sash chain, which is fitted with a hook and dropped down between the inside and outside walls. By having no stiffness the chain easily slides past these obstructions.

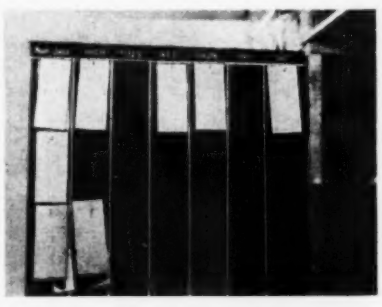
Work in Progress Visible Record

For quick information about jobs to be done the Electric Service Co., Mount Vernon, N.Y., uses this blackboard which folds back against the stock shelves. There is one section for rush jobs and others for each working day of the week.

When an order comes in the stenographer makes a job record as shown. When the work is completed the cost of materials and labor is listed, also the billing price. The card is then filed according to the name of the customer. This not only shows how profitable each account has been but



JOB RECORD CARD (4"x9")



BLACKBOARD FOLDS BACK

aids the contractor in knowing just what materials are likely to be needed by the customer when they are again called out to do a job. It is also helpful in estimating the stock that should be carried.

Blackboard Keeps Men on Toes

A schedule is always valuable to a contractor, especially where it pertains to important work for which customers are waiting. The Marks Electric Co., Chicago, has found it an advantage to keep the entire force advised as to just when each job is promised. This is done by means of

WIRING ON A RAILROAD BASIS.

a blackboard which hangs in the office and which is accessible to the foremen and any of the mechanics who happen to come in.

The record is for a week and shows plainly the date and the location of the job promised. This system has resulted in the finishing of each job on time, except in cases where inavoidable delays come up which are not the fault of the workmen.

On each Thursday or Friday the jobs completed are erased and those promised for the next week are listed on the board. Its chief value lies in the fact that it forces careful planning of all activities and movements of material to the jobs.

Drilling Through Tile

Contractors using the ordinary star drill for making holes in glazed tile frequently experience considerable difficulty with breakage. B. T. Morganroth, Brooklyn, N. Y., avoids breakage by the following method: Spot marked for hole is tapped lightly with a long tapered center punch. When the glaze is chipped off an eight penny finishing nail is placed in a breast drill or hand brace and the hole drilled. The nail is just as effective in tile as a drill and may be renewed at the first sign of wear.

Manufacturers News

A department for the announcement of activities of manufacturers that are of interest to contractors, such as changes in executive personnel, branch offices, new products, etc.

Earl Browne with Meyers Safety Switch

Incorporation of the former Meyers Safety Switch Co., San Francisco, Calif., manufacturers of safety switches, switchboards and panelboards, has been announced with Conrad J. Grieder as president of the new firm; Albert M. Rovegno and S. A. Meyers, vice-presidents; E. Earl Browne, secretary-treasurer, and R. L. Cameron, sales manager.

Mr. Browne formerly served as manager of the San Francisco Contractors and Dealers Association, now the San Francisco Electragists. In 1919 he organized the firm of Browne-Langlais, which operated in San Francisco as electrical contractors for a number of years.

The present corporation is an outgrowth of the partnership operated for the past ten years by Messrs. Meyers, Rovegno and Grieder.

New Time Switch Selling Combine

A new selling combination called General Automatic Controls, Inc., with offices at 12 East 41 St., New York, has been launched to market a complete line of time and temperature controls including Tork clocks, Horolectric time switches, Hartford time switches, Welsbach time controls, Ghielmetti and Novitas Swiss made time switches and General Automatic time and temperature controls.

This consolidation of interests brings to a close the recent very active patent litigation in the time switch field.

All of the above manufacturers have authorized the Time Controls Repair Corporation, 116 West 14 St., New York, to handle repairs and replacements on all kinds of time and temperature controls. In addition, the Time Controls Repair Corporation, it is announced, is bringing into the automatic controls field the practice of the automobile industry by protecting the factory guarantees on all lines sold by General Automatic Controls, Inc.

Father of Broadcasting Dies

Dr. Harry Phillips Davis, vice-president and director of Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., and chairman of the National Broadcasting Company, died at his home at Pittsburgh, Pa., on September 10.

Dr. Davis was born in Somersworth, N. H., in 1868, graduated from the Worcester Polytechnic Institute, and joined the Westinghouse Company in 1891. For more than 21 years Dr. Davis was in charge of Westinghouse engineering department and in 1911 was elected vice-president.

Dr. Davis is best known for his development of radio broadcasting and started the first broadcasting station, KDKA, on November 2, 1920, and was active in every phase of radio and at the time of his death was internationally known as the "Father of Radio Broadcasting."

Benjamin Announces Unit Package

The Benjamin Electric Mfg. Co., Des Plaines, Ill., has developed a new unit package, consisting of either a Benjamin porcelain enameled steel dome reflector or angle reflector suitable for 75 or 100 watt lamps, with the new easy to wire hood and one-piece socket, packed complete with a 17½-in. length of ½-in. pipe and a Benjamin cast iron wall bracket. This is packed as one complete unit, eliminating the necessity of assembling parts from many sources, the cutting of pipe and bending of goosenecks.

Colored Rubber Insulation for Code Wire

General Electric Co., Schenectady, N. Y., has adopted colored rubber insulation as a method of identifying various grades of code wire as follows: Code—black; intermediate—red, and 30 percent—green. This marking enables wire in an installation to be identified at any time for years after wiring system is in use.

Another feature is tighter and closer braids with an improved weather-proof finish.

Higgins Joins Kirkman Engineering Co.

David Higgins, formerly purchasing agent for Stanley & Patterson, has joined the Kirkman Engineering Corp., New York City, and will have complete charge of sales in the Metropolitan area.

"Dave," as he is best known in the industry, was with Stanley & Patterson for 24 years, having joined the company in 1905 as errand boy and worked up to purchasing agent, which position he held upon his resignation when a recent merger was put through.

Bulletin F-10 describing A-S-E fuse cabs has recently been issued by the All-Steel-Equip Co., Aurora, Ill. This bulletin fully describes and illustrates various types of fuse cabs from 2 to 24 circuits, together with wiring diagrams and list prices.

R. O. Williams, formerly with Jackson Electrical Co., Chicago, has formed the Williams Electric Co. for the purpose of manufacturing and selling industrial, commercial and special lighting equipment and will be located at 904 W. Van Buren St., Chicago, Ill.

Chromalox Window Display

A display showing the manner in which old ranges can be modernized and put into active service by installing Chromalox super-speed range

units has been issued by Edwin L. Wiegand Co., 7585 Thomas Blvd., Pittsburgh, Pa., who manufacture Chromalox units.

The display has a flashing 60-watt bulb set in back of picture of the heating unit which light shines through giving a true-to-life reproduction of the glow of the heating unit. Display is furnished with porcelain base flasher, 8 ft. of approved cord and plug, and is 24 in. high x 14 in. wide.

Pass & Seymour, Inc., Syracuse, N. Y., announces the following changes in its field personnel:

C. C. Downie, who has been with Pass & Seymour since 1916, is now covering the Baltimore-Philadelphia territory, with offices in Baltimore, Md.

Frank J. Honn has been transferred to Cleveland to be in charge of the sales in the Ohio-Pittsburgh territory. He was formerly in the Philadelphia office.

John A. Hearn, formerly salesmen in the home office, has been transferred to the Chicago office as one of the city salesmen.

The General Electric Supply Corp., Scranton, Pa., announces the appointment of Ralph T. Robison as appliance sales promotional manager.

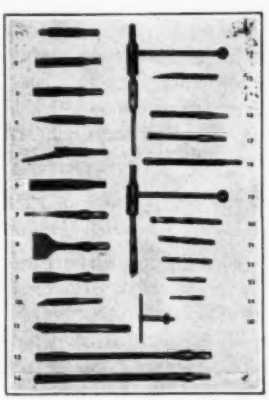
New Electrical Products

Quadrangle Mfg. Co., Chicago, Ill., announces the Quad open-type floodlight with focusing beam projector, service fitting and adjustable bracket. Outer reflector is porcelain enameled green outside, white inside, with rectangular openings 16x18 in., equipped with cadmium plated mogul socket fitting, and easily mounted on pipe standards, wood poles or walls of buildings. Beam projector is of copper chromium plated and is unique in design being a series of plane surfaces in parabolic form, delivering a beam that is wide horizontally with just enough deflection vertically to break up striation. Projector is mounted on a hinged rib of cast aluminum that fits into neck of reflector and attached at bottom by slotted focusing device. Mounting bracket is of cast aluminum, being a flanged "V" shape at back.

Type AL-33B floodlight for swimming pools and other underwater applications has been announced by the General Electric Co., Schenectady, N. Y. This unit, which supersedes Type L-33, has a projector with more efficient optical system, permitting a wide variety of mountings, and can be inserted or withdrawn from swimming pool niches by means of brackets for servicing. 400-watt lamps can be used, although standard 250-watt floodlight lamp is recommended. Projectors are of cast aluminum, with either side or bottom outlet for conduit.

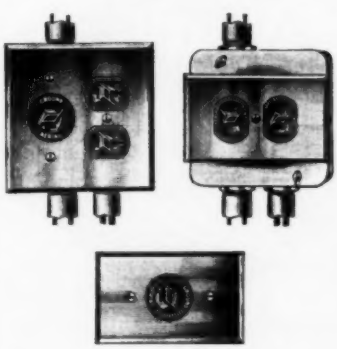
Pass & Seymour, Inc., Syracuse, N. Y., announces automatic door switches in both round and rectangular types. The round or barrel type switches are mounted on an outlet box which will take BX or loom with brass surface plate. Rectangular type can be furnished with or without switch box. When supplied without box, device may be used with a standard door switch box.

An indoor-type neon sign cable in three voltages is announced by General Electric Co., Schenectady, N. Y. Each cable is No. 14 in size, 19-strand, single conductor covered with high-tension rubber compound, single-braid of hard-finish cotton and 12 individual coats of high-tension lacquer. The 5,000 volt cable is slightly less than ¼ in. overall diameter, weighing about 50 lbs. per 1000 ft.; 10,000 volt is 0.350 in., weighing about 75 lbs. per 1000 ft. with slightly heavier coating of rubber, and 15,000 volt is slightly less than ½ in. overall diameter, weighing approximately 115 lbs. per 1000 ft., with a still heavier covering of rubber compound.



Milwaukee Electric Tool Co., Milwaukee, Wis., is manufacturing special hammer tools for use with its small electric drill, light in weight, with shoulder 1½ in. from end of shank.

The Trumbull Electric Mfg. Co., Plainville, Conn., announces a front operated RB safety switch, which is identical in design to the side operated type, with the following exceptions: lower half of cover hinged at center and interlocked with switch handle; lift in "off" position to renew fuses; slot in end of handle providing for "stick operation" when switch is installed out of reach; handle guard equipped with slots for use in locking switch and entire cover readily removed for switch inspection by taking out four screws.



Hart & Hegeman Division of the Arrow-Hart & Hegeman Electric Co., Hartford, Conn., announces the "H&H" multi-coupler antenna system of radio wave distribution in three types, No. 3060, 3063 and 3066, shown above. No. 3060 has one outlet for plugging-in aerial connection, one for power and one for portable lamp, similar in appearance to standard convenience outlets with wall plates to match. No. 3063 is a one-gang unit giving radio connection for aerial and ground, also one power outlet. Unit is complete with box, divider plate cover, receptacle and cap, multi-coupler and plate. No. 3066 is a one-gang unit consisting of a radio outlet, cap, multi-coupler and plate used for aerial and ground connection.

A. D. Quinn

A. D. Quinn, sales manager of the industrial division of the L. H. Gilmer Co., Philadelphia, died on September 17 while on a business trip in Chicago.

Mr. Quinn was born in Camden, N. J., in 1887. In October, 1919, he became associated with the Gilmer Company and in 1922 was placed in charge of the sales of the industrial division, which position he held until the time of his death.

The B. F. Sturtevant Co. of Hyde Park, Boston, Mass., has published a new catalog, No. 377, describing the Sturtevant unit ventilator.

This catalog describes and illustrates in detail the new flexible partial recirculation unit ventilator, and its function in present day ventilating problems.

Curtis Lighting, Inc., Chicago, Ill., announces the appointment of W. K. Turner and T. A. Esling as resident engineers in the Southern California and Arizona territory with offices in the Commercial Exchange Building, 8th and Olive, Los Angeles, Calif.

The switch and panel division, Square D Company, Detroit, Mich., has just issued a supplementary section to bulletin CA-505, known as bulletin CA-505-A, which describes the new shallow type convertible safety panelboard.

L. D. Tuttle, who has been representing the Van Norman Machine Tool Co. in the sale of Stanley automotive electric and service tools in the southern states, will represent the Stanley Electric Tool Co. direct, with offices in Atlanta, Ga., and Dallas, Texas.

Bulletin No. 700, entitled "Specifications and Design," has just been published by Diamond Electrical Mfg. Co., Ltd., of San Francisco and Los Angeles, which is affiliated with Square D Company. This bulletin covers Diamond E-Square D switchboards and panelboards, asbestos ebony and transite. Many photographs illustrating the use of Diamond E equipment are shown, together with pictures of the buildings where equipment was placed, as well as diagrams, prices, and installation layouts.

New Electrical Products

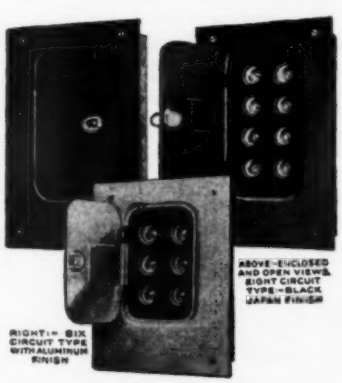
The Jumbo-Isolux floodlight, a wide angle floodlight for general outdoor use, is announced by the Wheeler Reflector Co., Boston, Mass. Unit has flat reflecting planes, a wide rectangular light outlet and straight line cut-off, with porcelain enameled steel reflector rectangular in shape, with green outside finish and white reflecting planes. The cast aluminum canopy is equipped with a mogul base porcelain socket, accommodating a 750, 1000 or 1500 watt general service lamp. Canopy is easily attached to reflector; the reflector can be detached and the canopy wired and installed separately so that entire unit need not be handled at top of pole during wiring.

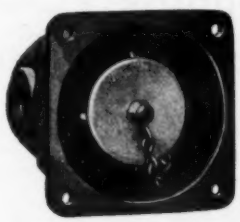
Electric Signal Co. Ltd., Los Angeles, Calif., announces the "Flanders," 2-note (notes C and G) Velvatone door chimes, type 2-C-2. It has a removable ornamental shield concealing the entire mechanism. Chimes are made of "bell metal" and the volume of each chime is regulated by turning a small adjusting screw and the timing of chimes regulated by a simple adjustment of the accessible control unit. Note C is 39 in. long and note G 45 in. long. Unit has a shielded non-burn-out solenoid.

Diamond "H" momentary contact switch is announced by the Hart Mfg. Co., Hartford, Conn. Unit has spot contacts of silver with actuating spring of phosper bronze. Switch is designed to be used in connection with remote control switches, to control the coil circuits.

The Trico Fuse Mfg. Co., Milwaukee, Wis., announces a complete line of air-cooled insulating and auto transformers ¼ to 50 kva. Transformers are totally enclosed and provided with mounting brackets and conduit connections. Units are so ventilated as to assure cool operation. Standard sizes are carried in stock while special sizes and booster transformers are made to order.

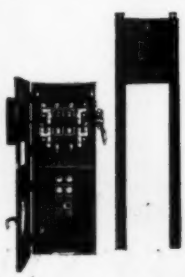
Cutler-Hammer, Inc., Milwaukee, Wis., announces "4355" branch circuit fuse panels in 4, 6, 8, 10 and 12 circuit panels for both flush and surface mounting. The features are universal, unit type fuse blocks of Thermoplax; dead-front plate easily removed; hole in terminal plate to anchor end of wire and extra large wire retaining ear; large washer head terminal screws; screw shells of heavy bronze, nickel-plated; button hole mounting; white nickel plated metal parts, and enclosing case provided with knock-out holes for all sizes of conduit and loom. Panels are furnished either in black japan or aluminum enamel finish.





Type FRN receptacle for conduit used in concrete walls, piers, etc., as a permanent wire-way is announced by Ralco Mfg. Co., Chicago, Ill. Mounting base for receptacle is set back in box so that receptacle is flush, and is installed by attaching box to concrete form by 4 stove bolts before pouring concrete. Receptacle box is regularly drilled and tapped, 2 openings for ¾ in. conduit opposite sides; 2 openings for ½ in. conduit opposite sides and sealed with removable plugs. It can also be used for wharves, docks, loading platforms, locomotive and car pits, basements, as outlets for all types of portable equipment.

A line of decorative Mazda lamps in the 30-watt size, spherical bulb shape, in 115 and 120 volts, is announced by General Electric Co., Schenectady, N. Y. These lamps are available in a variety of six bulb finishes and colors and will retail at 15 cents each.



A 3-in-1 switch combining a meter-test service switch with a distribution cabinet for both lighting and electric range circuits is announced by the Square D Company, Detroit, Mich. The 60 amp. fuses for the range circuit are attached to a pull-out cover so that they are removed and circuit disconnected with cover is pulled out, thus providing dead front construction. Provision is made for four 30 amp. circuits for lighting. Switch is wired to branch fuse box and meter loops are supplied soldered in the lugs. Main fuses are accessible through small interlocking fuse door which can be opened only with switch in the "off" position. Sealing provisions are made for all doors.

American Blower Plans New Factory

American Blower Corp., Detroit, Mich., has purchased a 17-acre tract at Tireman Avenue and the Detroit Terminal Railroad in Detroit. The company will erect, sometime in 1932, a new and thoroughly modern plant for the manufacture of air handling apparatus of all kinds.

Day-Brite Reflector Co., St. Louis, Mo., has just published catalog No. 9 describing its reflectors for stores, hotels, banks, art galleries, etc. The catalog also describes sign, stage, wall-case and window lighting, as well as switchboards, etc. It is profusely illustrated, containing diagrams for installation purposes, as well as price-lists.

Edwin L. Wiegand Co., Pittsburgh, Pa., has recently issued Bulletin C-107 showing the different sizes and ratings of Chromalox super-speed range units.

Bulletin 2-1, descriptive of "Type RS" repulsion start induction single-phase motors, has just been issued by Century Electric Co., St. Louis, Mo.

Kester Solder Co., Chicago, Ill., announces the opening of a plant at Brantford, Canada, on September 15, to be known as Kester Solder Company of Canada, Ltd.

The General Electric Supply Corporation of Detroit, Mich., has opened new offices and warehouse at 2985 East Jefferson Ave., in charge of L. A. Pixley, division manager. Its former office was located at 415 E. Congress St.

Catalog No. 17 has been published by Major Equipment Co., Chicago, Ill., describing and illustrating its reflectors for all uses, stage lighting products, both permanent and portable, window lighting, floodlighting and cove lighting.

Cannon Electric Development Co., Los Angeles, Calif., has issued a bulletin entitled "Plugs and Receptacles," descriptive of Type M-1 series, for power and signal equipment.

Index to Advertisers

MILWAUKEE

The Tool "HAMMER-DRILL"

that "pays for itself on the first job"

Hammer mechanism can be completely disassembled and reassembled in 5 min. time.

3 in 1

* { It "drills" holes in wood or steel.
It "hammers" holes in brick or concrete.
It "sharpens" your tools while "on the job".

***ALL for approximately 1/3 the price of an electric-hammer, limited in its range of usefulness:—Why not make the most of prevailing conditions, and hammer down the costs?**

With our special hollow-drill (14" long) you can *drive a clean* 1⅛" hole through an 8-inch wall of hard concrete in 10 minutes, and keep doing it *all day long.*

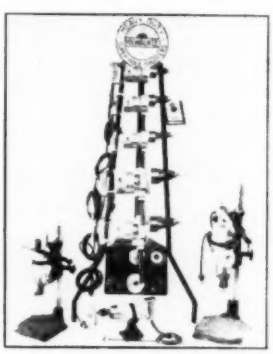
What does it profit a man if he wins many contracts and loses money in carrying them out?

Owing to its light weight (only 10 lbs.) the "Milwaukee Hammer-drill" is unexcelled for overhead work, or when drilling from a ladder.

Hammer cylinder is attached or detached with only the use of Jacobs Chuck Key. No tools required.

A Few Uses for Hammer: Channeling concrete or brick for concealing conduit. Strapping conduit. Particularly handy for overhead work on account of light weight. Mounting cabinets on concrete or brick walls. Drill attachment for all drill uses. Can also be used with automatic key-hole saws.

Drilling 1⅜" hole thru concrete floor using special hollow-drill.



A few other heavy duty tools.

TEAR OUT AND MAIL TODAY

I would like to see this tool demonstrated without obligation.

Name .....

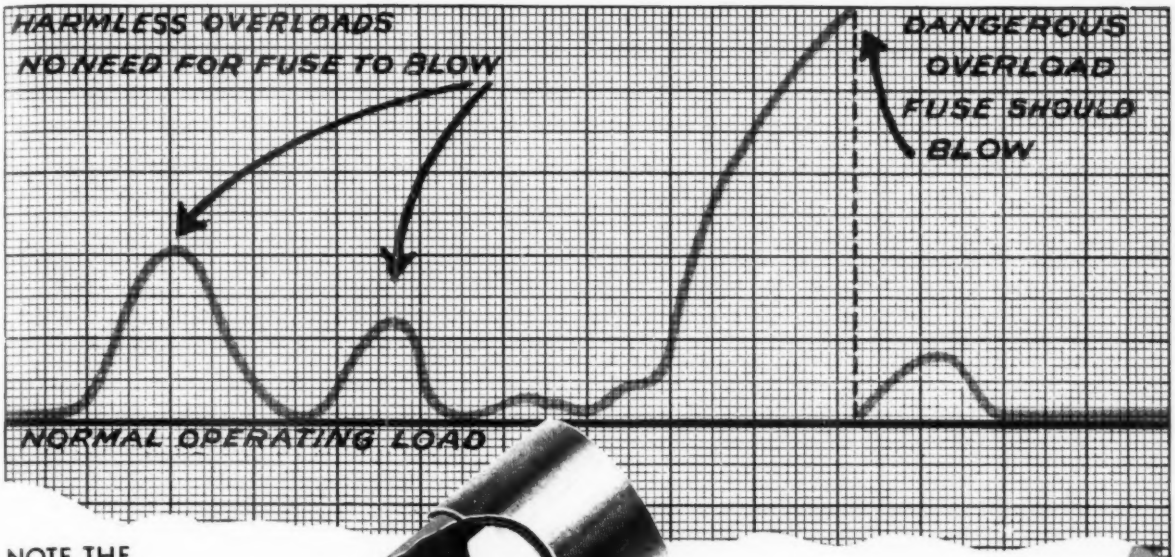
Address .....

City .....

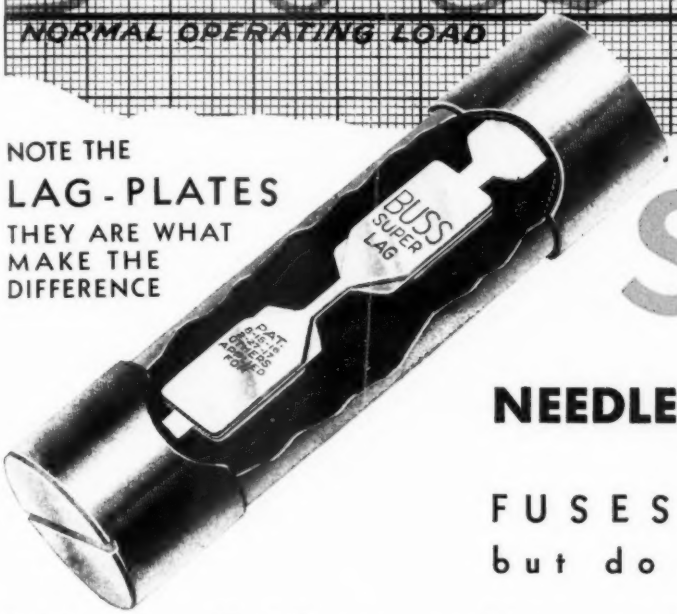
State .....

THE MILWAUKEE ELECTRIC TOOL CORPORATION

5400-A Rogers St., MILWAUKEE, WIS.



NOTE THE
LAG-PLATES
THEY ARE WHAT MAKE THE DIFFERENCE



STOP!

NEEDLESS FUSE BLOWING

by Using

FUSES THAT PROTECT

but do not blow to annoy

WHY put up with all the annoyance of fuses blowing needlessly? Why use old time fuses with their short *Unsatisfactory* time-lag?

Why not use *Modern Fuses?* Fuses designed to carry many of those troublesome current surges that occur at times on all electrical circuits.

You can obtain such a fuse in the NEW BUSS SUPER-LAG Renewable Fuse. Due to the "LAG-PLATES" attached to the BUSS Link it has a time-lag far in excess of anything ever before thought possible. Because of this it will *Safely Hold* many of those temporary or harmless overloads, heretofore so difficult to control.

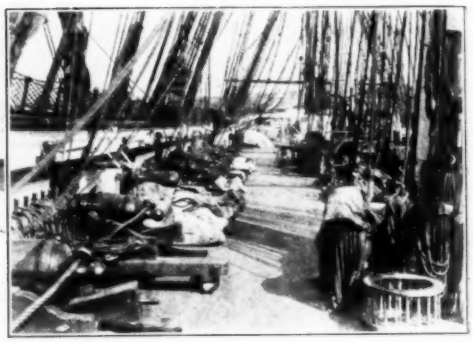
Don't be content to put up with all the waste and annoyance of old style fuses. Inform yourself about this latest invention in electrical protection —*A Modern Fuse Made to Meet Modern Operating Conditions.*

Write for the informative little booklet "The Story of the BUSS SUPER-LAG Fuse" or if you prefer we will be glad to have a representative call.

BUSSMANN MANUFACTURING CO. • • ST. LOUIS, MO.
A Division of the McGraw Electric Company

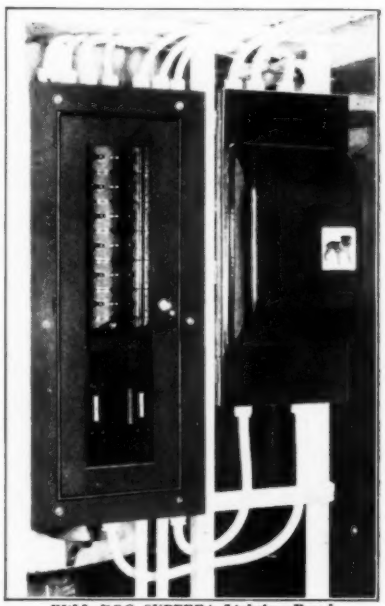
THE **BUSS SUPER-LAG** FUSE

View of Upper Gun Deck with its Maze of Rigging



"Old Ironsides" Sails On With Lights Controlled *by* BULL DOG

The U. S. S. "Constitution," since the War of 1812, America's most renowned and beloved man o' war, is sailing the seas again this summer. Because this historic frigate has become a floating national shrine, its interior is now electrically illuminated so that its thousands of visitors can view the ship in detail. BULL DOG is proud of the fact that their SUPERBA Lighting Panels and Safety Switch make "Old Ironsides" lighting equipment as up-to-date as that of the most modern industrial or office building.



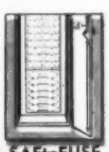
BULL DOG SUPERBA Lighting Panel and Safety Switch

SUPERBA Lighting Panel

BULL DOG ELECTRIC PRODUCTS COMPANY

Detroit, Michigan

In Canada: Bull Dog Electric Products of Canada, Ltd., Toronto, Ont.

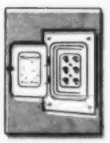


SAFtoFUSE Feeder Panel

SAFETY SWITCH

Bus-DUCT

Trol-e-DUCT



FUSENTER

SAFtoSWITCH-BOARD